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## MANAGEMENT OF FINANCIAL RISK – HOPE OF SUCCESS AND INVESTMENT AMONG ENTREPRENEURS AND EMPLOYEES

**Summary.** The aim of the study presented herein was to examine the differences in financial behaviour between entrepreneurs and employees, including their risk-taking behaviour and the association between financial actions with the hope of success. The hope of success has been broken down into components for the purpose of analysis. 143 subjects participated in the study, whom among them were shop owners and employees in Warsaw. The results showed that 1) entrepreneurs tend to invest more in assets than employees, 2) entrepreneurs tend to make riskier investments than employees, 3) entrepreneurs have a higher level of hope of success and in its individual components 4) hope of success and its components are associated with the tendency towards financial behaviour in both groups, though the association differs 5) The hope of success and its components are associated with the tendency towards investment risk primarily in the entrepreneur group.

**Keywords:** entrepreneurs, employees, financial behaviour, investment risk, hope of success

## ZARZĄDZANIE RYZYKIEM FINANSOWYM – NADZIEJA NA SUKCES A INWESTOWANIE WŚRÓD PRZEDSIĘBIORCÓW I PRACOWNIKÓW NAJEMNYCH

**Streszczenie.** Opisywane badanie miało na celu sprawdzenie różnic między przedsiębiorcami i pracownikami najemnymi w skłonności do zachowań finansowych, w tym zachowań ryzykownych oraz związku działań finansowych z nadzieją na sukces i jej komponentami w każdej z grup. Wzięły w nim udział 143 osoby, w tym właściciele i pracownicy warszawskich sklepów. Okazało się, że: 1) przedsiębiorcy są skłonni inwestować większą część środków niż pracownicy, 2) przedsiębiorcy są skłonni inwestować bardziej ryzykownie niż pracownicy najemni, 3) przedsiębiorcy charakteryzują się wyższym poziomem nadziei na sukces

i jej komponentów, 4) nadzieja na sukces i jej komponenty mają związek ze skłonnością do zachowań finansowych w obu grupach, choć zależność ta nie jest taka sama, 5) nadzieja na sukces i jej komponenty na związek ze skłonnością do ryzyka inwestycyjnego występuje przede wszystkim w grupie przedsiębiorców.

**Słowa kluczowe:** przedsiębiorcy, pracownicy najemni, zachowania finansowe, ryzyko inwestycyjne, nadzieja na sukces

## 1. Introduction

Small entrepreneurs have gained markedly more attention in recent years. This is largely due to the influence of small business activities in the national economy. Many researchers have pointed out the large impact that small companies have in creating new jobs in the economy, raising national work productivity and in reducing poverty. They have also emphasized the importance of small entrepreneurs as a source of innovation and economic growth [i.e.,<sup>1, 2, 3</sup>]. Research by Blanchflower, Oswald and Stutzer<sup>4</sup> has shown that a large percentage of people would prefer „being self-employed” to „being an employee”. Ute and Ulrike<sup>1</sup> even state that in some countries such people constitute over 50% of the population. If this is the case, what stops these people from starting their own business? Ute and Ulrike<sup>1</sup> suggest this is due to a lack of entrepreneurial skills and abilities and in not knowing about existing business possibilities.

What traits distinguish entrepreneurs from employees? Researchers point out the importance of risk tolerance, a preference for autonomy and innovativeness and feeling in control, as well as education, business experience in the family and access to financial capital as important determinants of undertaking entrepreneurial activity. Dawidziuk<sup>5</sup> also points out several other important traits that distinguish entrepreneurs: self-confidence, resolve and persistence, diligence, inventiveness, vigour, the ability to take risks and thirst for achievement, creativity, initiative, flexibility, a positive attitude towards new situations, independence, being dynamic, foresight, and a desire for gain and optimism. If entrepreneurs are so different from employees, how does it reflect on their financial behaviours? Apart from

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<sup>1</sup> Ute S., Ulrike R.: Health of entrepreneurs versus employees in a national representative sample. „Journal of Occupational & Organizational Psychology”, 2010, No. 83(3), p. 717-738.

<sup>2</sup> Reynolds P.: Entrepreneurship in the US: The future is now. Springer 2005.

<sup>3</sup> Sekścińska K., Domurat A.: Inteligencja emocjonalna i dyrektywność wśród mazurskich przedsiębiorców, [w:] Skrzypek E. (red.): Etyka w biznesie. Wydawnictwo UMCS, Lublin 2010.

<sup>4</sup> Blanchflower D.G., Oswald A.J.: What makes an entrepreneur? „Journal of Labor Economics”, 1998, No. 16(1), p. 26-60.

<sup>5</sup> Dawidziuk S.: Przedsiębiorczość, droga do sukcesu w biznesie. Wyższa Szkoła Menadżerska SIG, Warszawa 1999.

the decision to start a business, do the smaller, everyday financial decisions differ between the two groups?

Classical economic theories view man as *homo-oeconomicus*, who typically makes rational decisions. A rational individual always manages his/her capital so as to maximize his/her gains, is not influenced by emotions or the pressure of others and only follows information coming from reliable financial analysis. After Daniel Kahneman and Amos Tversky published their article "Prospect Theory: an Analysis of Decision under Risk" in the *Ekonometrica* magazine in 1979, something changed in the way that researchers see the individual on the market. That paper became one of the most important texts that contributed to the birth of behavioural economics.

The representatives of this branch of economy had a different perspective on the way economic decisions were made by consumers and investors. The behavioural approach acknowledges the influence of psychological factors on the process of making financial decisions by market participants and questions the two main assumptions about the actions of consumers and investors emphasized by the neoclassical theory. In this form, the science has become strongly interdisciplinary and now combines economy with psychology and management.

Since the emergence of behavioural economics, including behavioural finance, much research has been conducted relating to the psychological determinants of the economical behaviour of the individual. One can utilise his or her accumulated capital in three ways: 1) current consumption, 2) saving and 3) increasing one's means – investment.

Research in the area of individual financial behaviour has so far shown a distinctive influence of psychological factors on the decisions made to consume, save or invest. Among others, the influence of emotion and mood<sup>6</sup> and personality traits such as conscientiousness, introversion, amicability<sup>7,8</sup> (Schmölder, 1966; Brandstatter 1996), inflexibility<sup>9</sup>, locus of control<sup>10</sup> and materialism<sup>10,11</sup> on the tendency to save has been proven. There has been relatively little research related to investments, and those conducted were concerned mostly with the behavioural determinants of stock market investors. Research of this type have so far examined the influence of investors' heuristics, motivational tendencies and preferences,

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<sup>6</sup> Zaleśkiewicz T.: Psychologia inwestora giełdowego. GWP, Gdańsk 2003.

<sup>7</sup> Nyhus E.K., Webley P.: The role of personality in household saving and borrowing behaviour. „European Journal of Personality”, 2001, No. 15 (Special issue: Personality and economic behavior), p.85-103.

<sup>8</sup> Davey J., George C.: Personality and Finance: The Effects of Personality on Financial Attitudes and Behaviour. *The International Journal of Interdisciplinary Social Sciences*, 5 (9), 2011.

<sup>9</sup> Wärneryd K.E.: Personality and Saving. VSB-CentER Savings Project Progress Report 39. Center for Economic Research, Tilburg University, 1996.

<sup>10</sup> Lunt P.K., Livingstone S.M.: Psychological, social and economic determinants of saving: comparing recurrent and total savings. „Journal of Economic Psychology” 1991, No. 12, p. 621-641.

<sup>11</sup> Rudzińska-Wojciechowska J.: niepublikowana praca doktorska.

emotional states and personality traits such as emotional stability, extroversion, risk acceptance, return, agreeableness, conscientiousness and reasoning on their stock market behaviours<sup>6,12</sup>. Among the wealth of research on an individual's financial behaviour, the author of this research has failed to find any that would examine its association with hope of success. The research described in the present work attempts to verify whether the level of hope of success and its components differentiates the individual's financial behaviour.

The hope of success is viewed in terms of a personality trait as described in Snyder's theory<sup>13</sup>. It is the individual's belief that one is competent enough to enable achieving success. Hope is comprised of two components: 1) the belief that one will be successful and 2) the belief that that success is dependent on one's own competence. Hope of success is important in situations of successive failures, overcoming obstacles and in moments of doubt about one's actions. The strength of hope of success is a result of its components: "willpower" – the belief that one can persevere in one's actions and successfully complete them; "waypower" – seeing oneself as resourceful, having the ability to find one or more pathways/solutions to a given problem.<sup>11</sup> Research thus far has shown that hope of success is associated with higher self-esteem, life satisfaction and less depressive tendencies and coping with stress better<sup>14</sup>. Research by Chmielewska and Trzebiński<sup>15</sup> has also shown a positive association between the hope of success with effectiveness and efficiency in coping with difficult situations. The author of this paper has been unable to find any research examining the association of hope of success with risky behaviour, including investing behaviour. Nonetheless, if people believing in success cope with stress better, have more self-confidence and do not give up after failure, they might prove to be good candidates for "small" investors, as they have the traits important for people actively building up their capital. Moreover, the belief in one's own agency in this area might significantly influence one's selection of investment strategies. Revealing these associations might be a starting point for new research.

Each way of utilising accumulated capital brings its own gains and losses. In the case of consumption, gain may be measured by the marginal utility of the purchased good or service. Of course, satisfying one's needs, improving one's mood or life satisfaction are also examples of gains. However, excessive buying is associated with the risk of spending more than one's

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<sup>12</sup> Chitra K., Sreedevi R.: Does Personality Traits Influence the Choice of Investment? „Journal of Behavioral Finance”, 2011, No. 8(2), p. 47-57.

<sup>13</sup> Snyder C.R., Cheavens J., Sympson S.C.: Hope: An individual motive for social commerce. „Group Dynamics: Theory, Research and Practise”, 1997, No. 1(2), p. 107-118.

<sup>14</sup> Kwon P.: Hope, defence mechanisms, and adjustment: implications for false hope and defensive hopelessness. „Journal of Personality”, 2002, No. 70(2), p. 207-232.

<sup>15</sup> Chmielewska A., Trzebiński J.: Basic hope and adaptation to flood trauma. Conference of the Society for Philosophy and Psychology. Barcelona 2004.

disposable means and so the risk of being unable to cover other important expenses. Such a situation results in debt or maxing out one's line of credit.

The cost of saving is the delaying of the possibility to purchase, but the gain is the possibility of bigger expenses without the need to take on credit or a loan with interest. Another gain is the profit from the interest earned on savings, net of inflation. However, saving is also tied to the necessity to resign from the possibility of using one's financial means over a given period, a year for instance. This carries the risk of having no dispensable means in case of sudden, necessary expenses.

Finally, investment enables one to build up capital, but carries the risk of losing it. It should be noted that money is an absolutely liquid instrument, which however brings no profit. Only on financial markets does its liquidity transfer into expected profit, which also carries a risk.<sup>16</sup> Financial instruments differ primarily on the expected rate of return and risk level one has to accept when allocating one's capital there.

Financial risk results from uncertain conditions and is also the result of an individual's actions and future environmental conditions.<sup>16</sup> From an economic viewpoint, the investment risk related to investments on the capital market can be divided into several specific categories. The first and most important is market risk, which is associated with the general economic situation. Its elements are:

1. the risk that the prices of instruments being sold will fall and of those being bought will rise,
2. the currency risk that fluctuations in currency exchange rates will influence the investor's financial result in the instruments denominated in a currency being different than that of the buyer's country,
3. the interest rate risk and the associated inflation risk. The rise of interest and inflation rates inclines investors to purchase bonds, while their fall inclines to buying shares.

Investment risk is also associated with the liquidity of a given security.<sup>17</sup> In case of low liquidity on a given market, selling an instrument might prove difficult,<sup>17</sup> which along with the above factors influences the profitability of securities purchased by individuals. Thus the described risk might, in the worst case scenario, mean the complete loss of allocated investments. It should also be noted that the liquidity risk might relate to the asset owner himself.

Another category is the solvency risk, which is associated with the financial situation of the issuer of a given security. The shares of a badly prospering company lose value and

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<sup>16</sup> Górski M.: Rynkowy system finansowy. PWE, Warszawa 2007.

<sup>17</sup> Dębski W.: Rynek finansowy i jego mechanizmy. Podstawy teorii i praktyki. PWN, Warszawa 2003.

the company might even stop paying dividends. This category of risk, in its extreme form, is when a company might declare itself bankrupt.<sup>16</sup>

Political and legal risks are those associated with the influence of legal regulations, rules and taxes on the possibility of profiting from the investment in a given financial instrument.

The above risk categories are only a few of several other existing ones. However these selected few are those which seem most relevant to the risk to private individuals.

Risk-taking tendencies have been the subject of much research, proving or demonstrating the influence of many different psychological and environmental factors on one's preferences in this area. Among the economical factors one should note the financial situation of the security issuer, the economical situation in the country and world-wide and the individual's income. In the case of psychological factors, conducted research has shown that personalities showing low-anxiety and low-neurosis,<sup>18,19</sup> with high results on the hardness scale and an inner locus of control,<sup>20,21,22</sup> being less prone to stress, more resilient, more lively,<sup>23</sup> extrovert, open to new experiences,<sup>24</sup> with lower perseveration, less emotionally reactive<sup>23</sup> and with low agreeableness and conscientiousness<sup>24</sup> have more risk-taking tendencies.

Little research however has been conducted on the tendency towards risky investment behaviour of average individuals such as small entrepreneurs and employees.

## 2. The purpose of the study

The purpose of the conducted research was to examine the differences between entrepreneurs and employees in tendencies towards particular financial behaviours, taking risky investment decisions and preferred investment strategies dependant on their hope of success, and on the individual components which make up this hope.

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<sup>18</sup> Xiao Z., Wang D.: Economic environment and personality: how do they influence investment decisions and regret? „Social Behavior and Personalisty”, 2009, No. 37(10), p. 1297-1304.

<sup>19</sup> Dziworska K.: Inwestycje przedsiębiorstw. Wydawnictwa Uniwersytetu Gdańskiego, Gdańsk 1993.

<sup>20</sup> Studenski R.: Ryzyko i ryzykowanie. Wydawnictwo Uniwersytetu Śląskiego, Katowice 2004.

<sup>21</sup> Zawadzki B., Strelau J.: Formalna Charakterystyka Zachowania – Kwestionariusz Temperamentu (FCZ-KT). Pracowania Testów Psychologicznych PTP, Warszawa 1997.

<sup>22</sup> Drwal R.Ł.: Opracowanie kwestionariusza Delta do pomiaru poczucia kontroli. „Studia Psychologiczne”, 1979, Nr 18, s. 67-84.

<sup>23</sup> Glenc M.: Skłonność do podejmowania ryzyka, czyli psychologiczna charakterystyka ryzykantów, [w:] Goszczyńska M., Studenski R. (red.): Psychologia zachowań ryzykownych. Wydawnictwo Akademickie Żak, Warszawa 2006.

<sup>24</sup> Lauriola M., Levin I.P.: Personality traits and risky decision-making in a controlled experimental task: An exploratory study. „Personality and Individual Differences”, 2001, No. 31, p. 215-226.

As opposed to most research conducted to examine the interrelations associated with investment, the presented research considers the allocation of assets by average individuals who are not stock market investors.

**Research questions:**

1. Do the tendencies to consume, save and invest differ between entrepreneurs and employees?
2. Do the tendencies towards risky investment behaviours and investment strategies differ between entrepreneurs and employees?
3. Does the hope of success and its components differ between entrepreneurs and employees?
4. Are the tendencies to consume, save and invest associated with hope of success and its components?
5. Is there a relationship or association between the tendency towards risky investment behaviour and hope of success?

**3. Research method****3.1. Participants**

The research subjects were 143 owners and employees of shops in the city of Warsaw. Participation was voluntary and anonymous. The group consisted of 101 women and 42 men, aged 19 to 74 (mean = 33,64; SD = 13,19). The average disposable (left after covering all necessary bills and dues) real income in the group was 2561,64 zł with SD = 789,77. Two equinumerous groups were considered in the analysis. There were 53 entrepreneurs aged 23 to 60 (mean = 40,57, SD = 11,56) in the first group and 53 randomly selected employees aged 20 to 64 (mean = 34,17, SD = 13,99) in the second group. The groups thus set apart did not significantly differ in real income ( $t(102) = 1,489, p > 0,05$ ) or perceived income ( $t(102) = 1,371, p > 0,05$ ).

**3.2. Research tools and procedure**

Participants first completed a short initial survey in which they stated their form of employment (entrepreneur/ employee), gave their real income and evaluated it on a five point (very low to very high) scale, and evaluated their economic knowledge. They would then solve the psychometric instrument measuring the tendencies to invest, save and consume, the instrument measuring the tendencies towards investment risk and investment strategies and finally complete the Hope of Success Questionnaire.

### **3.2.1. *The tendency to consume/ save/ invest***

The tendency to consume/ save/ invest was measured using the author's own designed instrument, comprising of 3 items in which participants were asked to divide 3 sums of money between current consumption, savings and investments. The amounts of money differed significantly so that there was a small amount, an amount neither small nor large and a large amount. This differentiation was to ensure that these amounts would be thus perceived by the participants accordingly. At the end of the procedure they were asked to evaluate each amount on a three point scale of 1) small 2) neither large nor small 3) large.

### **3.2.2. *The tendency towards investment risk and investment strategies***

The tendency towards investment risk and investment strategy was measured with the author's instrument consisting of four items. Each item included a description of a situation involving investment decisions by the participant. The participant's task was to select from the possibilities given his/her preferred form of allocating financial resources. The answers in each task involved different levels of risk. The sum total was the general indicator of the tendency towards investment risk. The result of individual tasks indicated particular investment strategy in the circumstances given. The psychometric properties of the Tendency towards Investment Risk Scale were satisfactory (the Cronbach Alpha was 0,793).

### **3.2.3. *Hope of success***

Hope of success was measured with the Hope of Success Questionnaire by M. Łaguna, J. Trzebiński and M. Zięba (2005). The questionnaire consists of 12 statements, out of which 4 are buffer items. The result of the remaining eight is the general indicator of the hope of success, which comprises of two components: 1) concerning the ability to initiate action and persist despite obstacles, called *the belief one is strong-willed*, and 2) perceiving oneself as resourceful and able to come up with a way to achieve a goal, called *the belief one is able to find solutions*. The psychometric properties of the scale are satisfactory: the Cronbach Alpha for the whole scale is 0,74 to 0,88; 0,7 to 0,84 for the first subscale and 0,63 to 0,86 for the second.

## **4. Results**

The results analysis was initiated by verifying the descriptive statistics for the tendency to consume, save and invest in the two groups as set apart by the employment from. Irrespective of the allocated amount, employees assigned a greater part of it to consumption and saving



than entrepreneurs. Entrepreneurs tended to invest a greater part of the allocated amount, irrespective of whether it was small, medium or large. The results are presented in table 1.

Table 1

Descriptive statistics for the tendency to consume, save and invest  
in the entrepreneur and employee groups

		<b>Entrepreneur group results (in zł)</b>	<b>Employee group results (in zł)</b>	<b>Total population results (in zł)</b>
Small amount	Consumption	Mean = 271,57 SD = 187,68	Mean = 324,04 SD = 157,61	Mean = 298,05 SD = 174,32
	Saving	Mean = 67,06 SD = 126,57	Mean = 99,04 SD = 119,41	Mean = 83,20 SD = 123,46
	Investment	Mean = 160,78 SD = 105,64	Mean = 56,73 SD = 112,47	Mean = 65,31 SD = 93,95
Medium amount	Consumption	Mean = 909,80 SD = 781,86	Mean = 1128,85 SD = 836,03	Mean = 796,93 SD = 505,43
	Saving	Mean = 635,29 SD = 664,15	Mean = 876,92 SD = 773,99	Mean = 1410,97 SD = 688,29
	Investment	Mean = 1445,09 SD = 930,01	Mean = 950,00 SD = 780,00	Mean = 824,43 SD = 729,54
Large amount	Consumption	Mean = 1874,51 SD = 1103,09	Mean = 2480,77 SD = 1110,02	Mean = 1815,58 SD = 1151,96
	Saving	Mean = 2294,12 SD = 2224,75	Mean = 2969,23 SD = 1160,89	Mean = 4563,96 SD = 2300,59
	Investment	Mean = 5500,00 SD = 3506,08	Mean = 4061,54 SD = 2907,23	Mean = 3515,86 SD = 2467,23

The next descriptive statistics verified were those concerning the tendency towards risky investment behaviour between the same groups. Consequently in all aspects of investment and the general indicator of the tendency towards risky investment decisions, entrepreneurs chose higher-risk options which gave the possibility of more gain. The results are presented in table 2.

Table 2

Descriptive statistics for the tendency towards risk investment behaviour  
in entrepreneur and employee groups

	<b>Entrepreneur group results</b>	<b>Employee group results</b>	<b>Total population results</b>
Instrument selection by others	Mean = 2,87 SD = 1,19	Mean = 2,29 SD = 1,07	Mean = 2,58 SD = 1,16
Individual selection	Mean = 3,02 SD = 1,24	Mean = 2,38 SD = 0,88	Mean = 2,70 SD = 1,11
Long term	Mean = 3,17 SD = 1,32	Mean = 2,79 SD = 1,30	Mean = 2,98 SD = 1,32
Short term	Mean = 2,31 SD = 1,21	Mean = 2,04 SD = 1,00	Mean = 2,17 SD = 1,11
General indicator	Mean = 11,52 SD = 3,92	Mean = 9,94 SD = 3,42	Mean = 10,72 SD = 3,74

The next step was to verify descriptive statistics for hope of success and its components in the total population and among the entrepreneur and non-entrepreneur groups. Employees had consistently lower results both in the general hope of success indicator and in both of its components. The results are shown in table 3.

Table 3

Descriptive statistics for hope of success and its components in the total population and the entrepreneur and employee groups

	<b>Entrepreneur group results</b>	<b>Employee group results</b>	<b>Total population results</b>
Hope of success general indicator	Mean = 48,70 SD = 8,56	Mean = 43,33 SD = 10,09	Mean = 45,99 SD = 9,69
Being strong willed	Mean = 23,26 SD = 5,06	Mean = 20,00 SD = 6,99	Mean = 21,61 SD = 5,76
Solution finding ability	Mean = 25,44 SD = 4,49	Mean = 23,33 SD = 5,73	Mean = 24,38 SD = 5,24

The significance of the differences observed with the descriptive statistics was then verified. The answer to the first research question was attempted: do the tendencies to consume, save and invest differ between entrepreneurs and employees? For this purpose, the results were analysed with *t*- Student's test for independent samples. The first group was entrepreneurs, the second-employees.

Results showed that the groups did not differ in their tendencies to consume and save, irrespective of the distributed amount. However, there were significant differences in investment tendencies between the two groups. It appeared that entrepreneurs tended to invest more of their disposable income than employees. It should be pointed out that differences appeared in the allocation of all the amounts: the small, the neither small nor large and the large amount of money. In all three cases entrepreneurs tended to invest a greater part of their financial resources. The results are shown in Table 4. In the cases of distributing the small and large amounts, the results of both groups did not differ significantly.

Table 4

The tendency towards financial behaviour depending on the individual's income

	<b>Average result in the entrepreneur group</b>	<b>Average result in the employee group</b>	<b><i>t</i>-Student's test results</b>
Investing a small amount	160,78 zł	56,73 zł	t(83,43) = -3,501, p = 0,001
Investing a medium amount	1445,09 zł	950,00 zł	t(101) = -2,440, p < 0,01
Investing a large amount	5500,00 zł	4061,54 zł	t(101) = -2,139, p < 0,05

The next step was to run an analysis to answer the second research question: Do the tendencies towards risky investment behaviours and investment strategies differ between entrepreneurs and employees? This was done with a *t*-Student's test for independent samples. It appears from the results that entrepreneurs have a stronger tendency towards

investment risk than employees (table 5). The analysis of the results shows that entrepreneurs tend to take more risks than non-entrepreneurs in either case when the individual financial instrument is chosen by them or whether the final choice was made for them by a third party. The maturity date of assets did not differentiate investment risk tendencies between the groups. The values of individual statistics for this step of analysis are presented in table 5.

The next step of the analysis was to verify the differences between entrepreneurs and employees in their levels of hope of success and its two components. The results show that entrepreneurs have a higher level of general hope of success than employees (table 6). They also have higher results in both subscales of the test, which means they have a stronger belief in themselves both as strong-willed and more able to find solutions (table 6).

Table 5

Difference in the tendency towards making risky investment decisions  
between the entrepreneur and employee groups

	Average result in the entrepreneur group	Average result in the employee group	t- Student's test results
Instrument selection by others	2,87	2,29	t(103) = -2,615, p < 0,01
Individual selection	3,02	2,38	t(182) = -2,830, p < 0,01
Long term	3,17	2,79	n.s.
Short term	2,31	2,04	n.s.
General indicator	11,52	9,94	t(95) = -2,118, p < 0,05

Table 6

Differences in hope of success levels and its components between  
the entrepreneur and employee groups

	Average result in the entrepreneur group	Average result in the employee group	t-Student's test results
Hope of success general indicator	48,70	43,33	t(99) = -2,881, p < 0,005
Being strong willed	23,26	20,00	t(99) = -2,950, p < 0,005
Solution finding ability	25,44	23,33	t(99) = -2,053, p < 0,05

It was further verified whether there is a relationship between the tendencies towards consumption, saving and investment and the hope of success and its components. The analysis was done by a one-way analysis of variance. To do this, both the entrepreneurs and the employees were divided into 3 groups of persons with the lowest, medium and highest levels of hope of success. The medium level of this variable was decided to be within +/- 1 standard deviation from the group's mean, and other results were divided into groups of either low or high levels of this trait.

After the one-way ANOVA, in the case of employees neither their level of the general indicator nor their being strong-willed appeared to differentiate their tendency towards investment risk. Only the ability to find solutions differentiated them in the case of allocation

of assets selected by a third party. It is worth noting that the  $\eta^2$  statistic proved this effect to be strong. A contrast test was then run and it showed that people with a low level of solution finding ability tend to take risks in such a situation less than people with a medium level of the variable, who in turn tend to take risks less than people with high levels of this variable. (tables 7 and 8).

In the entrepreneur group, the ANOVA revealed that the level of general hope of success differentiates the general tendency towards investment risk, and also the tendency towards risk in the case of allocating resources to instruments chosen by a third party and long term investments. It should however be noted that these effects were not strong. In all cases contrast tests showed a difference between persons with medium and high levels, where people with the highest results on hope of success scale taking the greatest risks. Furthermore, ANOVA analysis and contrast tests revealed that people with medium to high levels of the solution finding ability have a stronger tendency towards investment risk, especially in the case of short-term investments and individually chosen instruments, than people with low levels of the variable. It should be noted that the effects for the solution finding ability as shown by the ANOVA were strong when expressed by the  $\eta^2$  statistic were strong. Contrast tests show a difference between people with the highest and lowest levels of this variable (tables 7 and 8).

Table 7

Differences in the tendency towards investment risk depending on the level of hope of success and its components (ANOVA) in the entrepreneur and employee groups

		<b>Entrepreneurs</b>	<b>Employees</b>
General indicator	1)	F = 3,644; p < 0,05, $\eta^2 = 0,041$	n.s.
	2)	F = 3,229; p < 0,05, $\eta^2 = 0,127$	n.s.
	3)	F = 2,908; p < 0,05, $\eta^2 = 0,024$	n.s.
Instrument selection by others	1)	F = 4,169; p < 0,01, $\eta^2 = 0,041$	n.s.
	2)	n.s.	F = 4,060; p < 0,05, $\eta^2 = 0,156$
	3)	F = 4,478; p < 0,01, $\eta^2 = 0,044$	n.s.
Individual selection	1)	n.s.	n.s.
	2)	F = 3,304; p < 0,05, $\eta^2 = 0,264$	n.s.
	3)	n.s.	n.s.
Long term	1)	F = 3,251; p < 0,05, $\eta^2 = 0,048$	n.s.
	2)	n.s.	n.s.
	3)	n.s.	n.s.
Short term	1)	n.s.	n.s.
	2)	F = 3,007; p < 0,05, $\eta^2 = 0,147$	n.s.

1) Hope of success – general indicator; 2) Hope of success – solution finding ability; 3) Hope of success – being strong-willed.

The final stage of analysis was devoted to examining the differences in tendencies towards particular financial behaviours in the entrepreneur and employee groups in relation to their hope of success and its components levels. As in the previous stage, the analysis was

initiated by a one-way ANOVA, verifying the strength of the observed effects and running the appropriate contrast tests (tables 8 and 9).

In the entrepreneur group, the general indicator of hope and the ability to find solutions differentiated the tendency to invest small amounts but the effect was not strong. The analysis via contrast test shows that people with high levels of both variables invest a greater part of a small amount than people with a medium level. The second hope of success component – being strong willed – appeared to differentiate the tendency towards consumption and investing small and medium amounts. It should be noted that in the case of consumption and investing small amounts and consumption of medium amounts, the effect was strong. The contrast test showed that in the case of a small and medium allocation amount, people with medium levels of strong will consume more and invest less than people with a high level of this trait (table 9.)

Table 8

Differences in the tendency towards investment risk in relation to levels of hope of success and its components (contrast tests) in the entrepreneur and employee groups

	<b>Hope of success – General indicator</b>	<b>Hope of success – solution finding ability</b>	<b>Hope of success – being strong willed</b>
<b>ENTREPRENEURS</b>			
General indicator	high > average t = 2,70; p < 0,01	high > low t = 2,53; p < 0,01 average > low t = 1,99; p < 0,05	high > low t = 2,39; p < 0,01
Instrument selection by others	high > average t = 2,89; p < 0,01	n.s.	high > low t = 2,94; p < 0,005
Individual selection	n.s.	high > low t = 2,35; p < 0,01 average > low t = 2,43; p < 0,01	n.s.
Long term	High > average t = 2,53; p < 0,01	n.s.	n.s.
Short term	n.s.	high > low t = 2,43; p < 0,01 average > low t = 2,02; p < 0,05	n.s.
<b>EMPLOYEES</b>			
Instrument selection by others	n.s.	high > average t = 2,58; p < 0,01 average > low t = 2,51; p < 0,01	n.s.

In the employee group, ANOVA proved the general indicator for hope of success to differentiate the tendency to consume and invest small and medium amounts. It should be pointed out that this effect in the case of consuming both amounts and investing the small

amounts was strong (table 9). Contrast analysis showed that in the case of consuming small and medium amounts, people with high hope of success levels tend to devote more money than people with a medium level of this variable. Moreover, in the case of consuming small amounts, people with low hope of success levels want to spend more than people with a medium level. The tendency to invest small and medium amounts is stronger among people with a medium hope of success level than people with a low or high level (table 10).

Table 9

Differences in financial behaviour tendencies depending on the size of the amount and level of hope and its components (ANOVA) in the entrepreneur and employee groups

			Entrepreneurs	Employees
Small amount	Consumption	1)	n.s.	F = 7,064; p < 0,005, eta <sup>2</sup> = 0,116
		2)	n.s.	F = 2,931; p < 0,05, eta <sup>2</sup> = 0,023
		3)	F = 3,93; p < 0,05, eta <sup>2</sup> = 0,114	n.s.
	Saving	1)	n.s.	n.s.
		2)	n.s.	F = 2,999; p < 0,05, eta <sup>2</sup> = 0,068
		3)	n.s.	n.s.
	Investment	1)	F = 3,837; p < 0,05, eta <sup>2</sup> = 0,021	F = 4,237; p < 0,01, eta <sup>2</sup> = 0,173
		2)	F = 5,035; p < 0,01, eta <sup>2</sup> = 0,055	n.s.
		3)	F = 3,807; p < 0,001, eta <sup>2</sup> = 0,113	n.s.
Medium amount	Consumption	1)	n.s.	F = 4,265; p < 0,01, eta <sup>2</sup> = 0,095
		2)	n.s.	F = 4,063; p < 0,05, eta <sup>2</sup> = 0,138
		3)	F = 3,067; p < 0,05, eta <sup>2</sup> = 0,157	n.s.
	Saving	1)	n.s.	n.s.
		2)	n.s.	n.s.
		3)	n.s.	F = 3,820; p < 0,05, eta <sup>2</sup> = 0,138
	Investment	1)	n.s.	F = 6,556; p < 0,005, eta <sup>2</sup> = 0,091
		2)	n.s.	F = 5,515; p < 0,005, eta <sup>2</sup> = 0,043
		3)	F = 4,052; p < 0,05, eta <sup>2</sup> = 0,093	n.s.
Large amount	Consumption	1)	n.s.	n.s.
		2)	F = 3,057; p < 0,05, eta <sup>2</sup> = 0,189	n.s.
		3)	n.s.	n.s.
	Saving	1)	n.s.	n.s.
		2)	n.s.	n.s.
		3)	n.s.	n.s.
	Investment	1)	n.s.	n.s.
		2)	n.s.	n.s.
		3)	n.s.	n.s.

1) Hope of success – general indicator; 2) Hope of success – solution finding ability; 3) Hope of success – being strong-willed.

The ability to find solutions (AFS) differentiates the tendency to consume and save small amounts and consume and invest medium amounts. However, these effects are not strong (table 9). Contrast analysis has shown a greater tendency to consume small amounts in people with low rather than medium levels of AFS and a greater desire for consumption of medium amounts in the low AFS group than the medium variable level group.

Table 10

Differences in financial behaviour tendencies depending on the amount and the levels of hope of success and its components (contrast tests) in the entrepreneur and employee groups

	Hope of success – General indicator	Hope of success – solution finding ability	Hope of success – being strong willed
<b>ENTREPRENEURS</b>			
Consumption small amount	n.s.	n.s.	average > high t = 2,729; p < 0,005
Investment small amount	high > average t = 2,89; p < 0,01	high > average t = 3,166; p < 0,005	high > average t = 3,807; p < 0,001
Consumption medium amount	n.s.	n.s.	average > high t = 2,420; p < 0,05
Investment medium amount	n.s.	n.s.	high > average t = 2,882; p < 0,005
Consumption large amount	n.s.	average > high t = 2,316; p < 0,05	n.s.
<b>EMPLOYEES</b>			
Consumption small amount	low > average t = 3,211; p < 0,005 high > average t = 2,682; p < 0,01	low > average t = 1,949; p < 0,05	n.s.
Saving small amount	n.s.	low > average t = 2,127; p < 0,05	n.s.
Investment small amount	low < average t = 3,322; p < 0,005 high < average t = 3,843; p < 0,001	n.s.	n.s.
Consumption medium amount	high > average t = 2,903; p < 0,005	high > average t = 2,850; p < 0,005	n.s.
Saving medium amount	n.s.	n.s.	high > average t = 2,822; p < 0,005
Investment medium amount	low < average t = 2,903; p < 0,005 high < average t = 3,142; p < 0,005	average > high t = 5,712; p < 0,001	n.s.

Moreover, people with low AFS tend to save a smaller part of the small amount than those with a medium level of this trait, and people with high levels of AFS are more willing to devote a larger part of the medium amount to investment than people with a medium variable level (table 10).

Being strong-willed has shown to differentiate the tendency to save large amounts. The effect described proved to be strong (table 9). The contrast test shows that the difference appears in both groups. People with high levels of being strong willed want to save more of a large amount than persons with a medium level of this variable (table 10).

## 5. Conclusions

The results of the presented research have shown that the tendency towards consuming and saving one's income, irrespective of its value, is the same among entrepreneurs and employees. Distinct differences do however appear in the case of the investment tendency. Entrepreneurs tend to invest more and irrespective of the value of the amount allocated. Both consumption and saving do not require economic knowledge for their effects to be satisfying. Investing one's financial means is burdened with insecurity as to the final effects of the action and the risk of losing one's capital with nothing in return. The factor that might decrease the probability of allocating means in assets with little perspective for growth is economic knowledge. It enables the individual to verify a financial instrument offer at least with regards to a few basic characteristics. In the research presented here, the participants were asked to estimate their economic knowledge on a 0 to 10 scale, where 0 meant no knowledge and 10 meant expert knowledge. The results showed a distinct difference between entrepreneurs (Mean = 4,53, SD = 2,08) and employees (Mean = 2,91, SD = 1,75). Entrepreneurs evaluated their knowledge as much higher ( $t(102) = 3,969, p < 0,001$ ). Perhaps this could explain why they tend to invest a greater part of their means. They might feel that their knowledge will help them in selecting a financial instrument and will limit the likelihood of loss, which would give them a greater sense of security in financial actions than those people with low perceived economic knowledge.

The research results have also shown that entrepreneurs tend to invest in assets with a higher risk level than employees, both when they choose the financial instrument themselves and when it is done by a financial specialist. The perceived level of their own economic knowledge described above could explain the accepted risk in the case of individual asset choice, but if this variable was to explain the total variability of the tendency towards investment risk, there should be no difference between entrepreneurs and employees in the case of investing in financial instruments chosen by a third, specialised party. A difference does however appear. It is probable that earlier successes and failures in financial matters and experience in risk taking might cause this difference between entrepreneurs and employees even when the instrument is chosen by a specialist. Moreover, in accordance with the definition of an entrepreneur as given by Dawidziuk,<sup>5</sup> entrepreneurs generally have a stronger tendency towards risk, probably primarily including financial risk.

Further research results have shown that entrepreneurs differ from employees in a higher level of hope of success and in both of its components. Entrepreneurs have a stronger belief in their own strong will and abilities to find solutions. This result might point to the entrepreneur's natural predispositions towards fulfilling the tasks resulting from their form



of employment, but on the other hand it might be the result of earlier experiences. Opening one's own business is usually initially associated with slow financial growth or even losses, which teaches entrepreneurs patience and persistence in their actions. Moreover, nowadays it's difficult to imagine a company enjoying constant growth or even a financial situation stable over longer periods. Experiencing persistence in one's actions despite temporary failures seems to be an almost everyday occurrence to entrepreneurs. Running one's own business is also associated with constantly solving larger or smaller problems, and each of them strengthens the entrepreneur's feeling of being able to find solutions. Of course, employees also face failures and situations difficult to solve, but it still seems that entrepreneurs experience it significantly more often.

Research results have also pointed out a difference in the association between the tendency to invest and consume and the hope of success (and its components) between the two groups. Entrepreneurs consume less and invest more, the more hope of success they have. Employees consume most when they have a very low or a very high level of hope of success (and its components). The interrelation to investment has an inverted U-shape: people with a medium level of the variable have the tendency to invest the most, while persons with high or low levels invest significantly less. The observed interrelation in the entrepreneur group seems to have a logical explanation. A higher level of hope for an individual's success strengthens their will make investments, which after all always carry the risk of losing part or all of one's capital. We can assume that taking action without the belief that they will be successful seldom occurs. On the other hand the result in the non-entrepreneur group is astounding. Perhaps it is the effect of a poorly selected or too small sample. It would undoubtedly be interesting to replicate the conducted research and verify whether this interrelation is not an artefact.

Moreover, the entrepreneur group has shown an interrelation between hope of success and its components with the tendency towards investment risk, irrespective of the investment's duration and whether the choice of the financial instrument is done personally or not. In the case of the general indicator and strong will, one variable rises with the other. In the case of the solution-finding ability, the tendency towards risk grows with it until the medium level of the variable and later becomes constant. In the employee group, the interrelation concerned only the solution-finding ability and one aspect of investment. The results of the presented research thus show that the hope of success and its components are more important for risk-taking tendencies in the entrepreneur, rather than the employee group. However, this conclusion definitely demands a replication of the research with a greater number of participants.

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