

THEORETICAL AND PRACTICAL VIEW ON DETERMINANTS OF EDUCATION AS A PRODUCTIVE ELEMENT OF INDIVIDUAL AND HOUSEHOLD CONSUMPTION IN THE CONTEXT OF FUTURE CHALLENGES OF THE SLOVAK REPUBLIC

^aMARIANNA PSÁRSKA, ^bJAKUB HORÁK

Institute of Technology and Business, School of Expertness and Valuation, Okružní 517/10, 37001 České Budějovice, Czech Republic

email: ^apsarska.m@gmail.com, ^bhorak@mail.vstecb.cz

Abstract: By selecting a specific productive element of household, or individual, consumption, i. e. education, in view of its future significance, the paper's main objective is to find out and verify the importance of determinants that influence one's decision-making about it. It is necessary to characterize the productive element of consumption and a certain approach to it, thereby allowing one to become aware of the current situation and point out its magnitude in the context of the SR's future development. The analytical part comprises analyses of the current situation and determinants of the selected productive element (primarily from the economic and psychological points of view) and then outlines probable challenges of future development in the country's conditions. In terms of initial data sources, the paper follows from the Household Budget Survey statistics and research, own research and own questionnaire survey used for the purposes of this paper. The paper claims that decision-making of households about education expenditures is influenced by several simultaneous factors depending on an observed group of respondents, particularly in terms of their standard of living, perceived satisfaction, and overall attitude. The analytical part also reveals that decision-making of Slovakian households confirms a number of conclusions made by behavioural economists in the sphere of decision-making mechanisms.

Keywords: productive elements of consumption, alternative decision-making theories, determinants of decision-making, expenditures on education, personal approach to education

1 Introduction

The reason for choosing education as a particularly productive element is that it has been treated insufficiently and only a partial solution to this phenomenon has been presented. To be adequately introduced to the issue, it is essential for one to understand the decision-making mechanism associated with it, which is the key to understanding its future formation (Psárska, 2018a, pp. 2).

As the main objective is to look into the productive element of household or individual consumption (namely, expenditures on education and the overall attitude to education issues in terms of analysing productive aspects of education decision-making), it is necessary to examine them from a theoretical as well as a practical point of view (Ronzhina et al., 2016). According to recent research, the so-called alternative approaches to rationality have been used, hence a psychological view of the issue should be incorporated as well enabling one to uncover a particular approach and background of the mechanism. According to Valenčík (2004, pp. 2), the so-called productive consumption economy considers behaviour of households and a certain growth of the present value of expected future income (from generating and operating of assets that constitute their "family portfolio") as the target orientation. Productive elements of consumption are seen as parts of a household's consumer basket that are investments in the human and social capital by their nature. From the economic point of view, these are therefore elements not essential for survival, but their significance is proven to increase only after a certain standard of living of households has been reached (Ashmarina et al., 2018). However, what if the current situation does not create sufficiently favourable conditions for investments in the human and social capital in the form of education – not from the economic and material perspective, but from the time or motivational one? What is the main reason for the fact that people do not feel any motivation or joy of changes that may occur with education? In this respect, the paper focuses on what the actual situation is when deciding on costs on education in the SR, and also in the context of deciding on consumption of this element and discovering the process of implementing such decisions to the present as well as anticipated future development, including the attitude that individuals have

towards the future and the overall productive aspect (Madarász et al., 2010, pp. 28).

In connection with the paper outcomes, it should be noted that an analysis of the educational structure of population in relation to its income level showed that the level is (with few exceptions) determined by the level of education attained (Čitányová and Chrenko, 2011). From that standpoint, education is, therefore, necessary for development and success in the modern knowledge society and every economy. Additionally, it represents a kind of investment for each individual through which they can gradually increase not only their income but to use the knowledge gained and streamline their work step by step (regarding a particular way of learning indeed). While considering household budgets, it may be observed that the level of expenses on education for individual types of Slovakian households in the 2010-2017 period averages 0.3-0.6 % of the total net household monetary expenditures, which is fairly low (Psárska, 2018a, pp. 6-7), with self-employed individuals being the most eminent in that area. There are several possible causes for such low-level spending on education: one's busyness of work duties that go beyond regular working hours, one's lack of motivation to his / her self-education as well as other spending priorities (e.g. other members of the family, children), and even the still existing misconception that it is sufficient to finish a school and no further self-education is needed. From the psychological point of view, this may also involve one's aversion and reluctance to changes or a sense of comfort and / or self-doubt. All of these factors have been confirmed in the author's recent survey, with the variability of questionnaire answers being large despite the fact that 97 % of respondents consider spending on education to be beneficial and useful, which strongly contradicts the answers being subsequently expanded. The survey also indicated that the respondents were aware of reactions of people around them and felt a positive and/or a negative response having emerged from them. Here, the benefits of education expenses, embodied in higher income, non-monetary benefits, knowledge, contacts, and the respondents' well-being, were obvious. It should also be taken into account that all these variables are of great importance in the long term and have an impact on the level of one's financial and mental wealth (Psárska, 2018b, pp. 2).

Following from the above survey, the paper will primarily address determinants forming decisions on education spending and the overall attitude towards education as a productive element of individual consumption in the SR.

2 Literature Review

Learning is seen as a continuous process resulting in a level of education or training and involving a sum of knowledge and cognitive abilities that an individual has acquired on the basis of the process. From the psychological perspective, a more detailed process of learning and learning forms has been described by specific definitions and supplemented by a number of theories. Given the scope of the issue discussed here, the author has chosen a definition by Gage and Berliner (1986), where learning is seen as a process through which an organism changes its behavior based on its own experience. This definition points to the fact that learning takes time and its results are measurable over the course of time in connection with an individual behaviour. Some psychologists (behaviorists) concentrate their attention only on the directly observable behaviour of individuals adapting to stimuli from the environment, whereas cognitive psychologists consider observable actions to be information about what has already taken place in the memory of a person who is in an active balance with the environment. Next is humanism, where one is perceived as an active individual seeking environment in which he/she would be allowed to implement their learning plans. By learning about the previously mentioned stances, it is possible to recognize the essence and

contribution of each individual. The behaviorist approach is characterized by the fact that the basis of learning must be the learner's attitude. The humanistic approach suggests that there is a natural tendency for humans to acquire new knowledge and learning as such flourishes in the stimulating environment with a focus on the development of human personality. The cognitivist approach views learning as a complex mental activity and is oriented towards studying and the overall concentration, attitude and motivation. Furthermore, this paper will simultaneously take account of all three concepts and their views on people and education (with regard to the analyzed productive element of individual consumption) and will also find out which of them the survey respondents draw their attention to.

According to certain psychologists and educators, key cognitive processes of learning include insight, understanding, thinking, rationale, using inductive and deductive logic, and understanding the broadest possible contexts. They are the basis of long-term learning and cognition of the essence of different meanings based on which it is possible to adopt rational decisions or at least make assumptions. Do individuals actually educate themselves daily? Do they think about connections and the events around them? Do they consider the broader context of long-term fulfillment of their objectives? Or do they merely state the realities, repeat what they have heard around them, choose simple alternatives and remain engaged in their present jobs out of habit or interest? These issues shall be addressed in the analytical part.

2.1 Alternative approaches to rational decision-making

The basic term in alternative approaches to rational decision-making is the so-called limited rationality manifested by the fact that a person is not always able to consistently and immediately apply cost and benefit calculations, he / she decides under uncertainty or has insufficient or not always the right information (Vrbka and Stehel, 2019). His / Her decision may be influenced by the amount of effort to obtain information or is made under the influence of emotions. Human psychology has a great influence in that respect, as studied by behavioral economics, and an optimally satisfactory solution to one's situation is therefore realized.

Also, behavioral economics addresses specific circumstances of an individual's failure and causes of crises or economic problems. They are justified by the fact that everyone's behaviour is equally irrational consequently resulting in the emergence of market bubbles. See more, for instance, in the summary of key characteristics according to Psárska (2018b, pp. 3).

2.2 Determinants of decision-making about education as a productive element

The main idea of education and learning is a change in one's behaviour resulting in better and more meaningful decisions. It is advisable to choose a rational-empirical approach to the change, i.e. the change of a planned nature that is related to the productive side of decision-making. The planned change is an intended, purposeful process of influencing the current state of an individual, a household, a group or an organization in order to improve their life, work or other conditions provided that the participants of change work together.

The basic groups of factors shaping the decision making mechanism of individuals and households involve economic, social, demographic and other determinants, and also include psychological factors. In the first step and in connection with the productive elements of consumption, the most important and decisive are considered to be economic factors as a prerequisite for their application, also with regard to expenditures on education and decisions about them, which allow financial resources to be spent on education. The economic factors encompass cash incomes, expenses, savings and propensities to them, price levels, mutual price relations, loans and / or debt rates (Barros, 2018). According to behavioral economics, one prefers to choose an alternative that brings about a change in

wealth, which is definitely possible in terms of productive elements of consumption (in this case education). Demographic factors related to decision-making take into account a size of household, age of its members, trends, social affiliations to a particular household type, concerns of household members about losing their jobs and a number of other elements causing their immediate feedback on the changed situation. Other factors involve, for instance, a place of residence, habits, and traditions formed on the basis of natural, climatic, historical or cultural conditions, also taking into account certain national characteristics. This group of factors may also include accepting the values of consumer society, noticeable changes towards greening and awareness of one's responsibility. There are several additional factors as well and many of them are directly or indirectly involved in the formation of expenditures and an attitude to education, although their impact is rather individual, as shown in this research, where particular directions and basic lines in decision-making arise in groups, being the main focus of the analytical part.

Since the behavioral approach is based on the premise that human behaviour is motivated by two main systems, namely seeking a reward or opposing a loss (Psárska, 2018b, p. 3), it is necessary to reflect on what reward is produced by productive elements of consumption embodied in education, and whether there is any danger of loss in them? And how can productive elements of consumption protect households against future risks? In this respect, there are useful studies directed to analyses of decision-making and possibilities of how to encourage people to make better decisions, which can be of great help in policy-making and corresponding targeted actions.

It is possible to look at education decision-making from several psychological viewpoints, with the changes being primarily embodied either in measurable learning outcomes (which are observable) as well as outcomes that are directly unobservable (and occur in one's mind) or in the effort, activities and search for learning opportunities and continuous improvement (Baker, 2019). The changes in activities are linked to the concept of an individual's motivation. However, what level of motivation may be observed when there are people who do not like changes, avoid them and subsequently lack the desire to continue to learn and grow? What part of the population has this approach to changes? What may the approach eventually lead to? Is it possible to see the approach at least as partially rational? It may be argued that more people (and even young people) are affected by this than one would have expected (Crozier et al., 2008). According to Popjaková (2015, pp. 268), young people are not sufficiently aware of the importance of life-long learning and do not draw enough attention and importance to it in their lives. Some have their own barriers that require a specific type of intervention, making situations even more complicated, and not always do they try to solve them, but opt for less resistance and prefer the current state or comfort to a more complicated solution to situations. In terms of individuals' performance, it is essential to focus on their motivation, satisfaction, and engagement in the learning process and then their working life, which will result in the individuals' greater contribution and added value. Consequently, not only does it affect business performance, but also the economy as a whole as labour is the key factor for any advanced country's success in the future.

2.3 Education as the key factor for socio-economic performance of countries

Education system and the level of attained education make major contributions to the long-term economic growth and good quality of life. The basic idea is that specific products of education involve knowledge and skills that improve the position of an individual and a particular country in the present competitive environment. Given the SR's relatively small, open and export-driven economy, with the main source of growth being human resources (even with regard to automation and robotics), the issue discussed is therefore considered to be significant in connection with the country's future development.

Moreover, the current macro-economic situation is as follows. In 2017, the SR spent 4 % of its GDP public spending on education, which is about 1 % less than the EU average. It seems that households tend to spend a very small part of their income on education, which does not create favourable conditions for the future, for according to the OECD, average pupil results appear to increase with increasing spending on education. Another factor affecting the results is the level of attained education of adults influencing pupils. This category primarily includes family members as well as teachers who, according to McKinsey analysts, are able to turn an average pupil to an above average one, but also vice versa, depending on whether the teacher is good at what he / she does. However, this is clearly not the whole range of problems directly related to education, as evidenced by the author's research. Thus, it is necessary to address the issue comprehensively, systematically and with a broad focus on the whole of education. In fact, the situation seems to be serious, as proved by various measurements of pupils' knowledge and skills, which are the so-called school education products and which are markedly worsening (Veselková and Holková, 2018, pp. 23-26). This was also confirmed by the OECD PISA international research for the 2006-2015 period referring to primary school pupils. As regards adults, the so-called PIAAC testing found that their position is better, for they ended up just above the OECD average. In this respect, however, it is also worth mentioning that one has a worse ability to solve problems when surrounded by new technologies, yet these can predetermine economic and social success in the future.

3 Materials and Methods

A questionnaire was compiled for the purposes of this paper, with its respondents being randomly selected. Questions were formed having several choices, including open questions, so that a comprehensive overview of economic and psychological motives of the implemented decision-making mechanism could be obtained, also taking into account the theoretical framework used. One of the strengths is the effort for a complex conception of a partially solved topic even from the viewpoint of theories and practice. The weakness is a smaller sample of respondents, which, however, is compensated to a certain extent by the present research in this area and the previously realized questionnaire survey of a more general nature that also concerned productive elements of consumption. The survey was conducted between 7th-14th April 2019 through a Google form sent via email or via social networking.

The questionnaire comprised two main parts with a total of 23 questions. In the first part, there were questions related to descriptive characteristics (see Table 1) in terms of detecting a status of households, a number of dependent children in households and a level of net income per person (Questions 1-3). Selecting the characteristics served as a reference not only to the previous survey but also to the Household Budget Survey statistics, making it possible to interlink and verify individual findings of the surveys. The second part dealt with the issue of consumption, expenses, motives, attitudes or opinions. Here, the questionnaire contained categories of expenditures spent on education, including open questions, which allowed the author to point out the motives of decision-making and gain a number of other and more specific incentives to analyze the consumption elements of a productive nature in relation to learning in practice.

Table 1: Descriptive characteristics of target sample (questionnaire, questions 1-3)

Question (1.)	Rate of responses	Question (2.)	Rate of responses	Question (3.)	Rate of responses
Pensioner	5.1 %	without children	56.7 %	up to €500	13.3 %
Maternity leave	10.2 %	with 1 child	18.3 %	between €500-1000	38.3 %
Self-employed	8.5 %	with 2 children with 3 children	25 %	between €1000-1500	25 %
Employee	76.2 %	and more	0 %	between €1500-2500	18.3 %

Unemployed 0 % - over €2500 5.1 %
Source: Own processing.

When analyzing and drawing conclusions from the collected data, the author is indeed aware that the sample is unevenly distributed in proportion to the number and structure of the population of the country under observation. However, in order to verify certain anticipated trends, determinants, status or directions in the development of consumption of the selected productive element, the overall research approach is sufficient in this respect.

The author used methods of economic analysis as well as critical literature review, where she was concerned with more detailed partial hypotheses that were continuously verified and developed. Also included in the paper was the method of scientific research, which is the way or process by which an intended outcome is achieved following a particular starting point or basis. Selecting the specified methods was dependent on sub-hypotheses.

4 Results and Discussion

The analytical part consists in identifying the current situation in the form of basic characteristics in which households live (mainly from the standpoints of attitudes, motives, and tendencies associated with educating individuals and the productive aspect in the "education" consumption). Following is an analysis and definition of key determinants of the selected productive element.

4.1 The identification of basic characteristics in decision-making and the approach to education

The basic information shows that up to 90 % of the respondents undergo some form of education. The reason why the rest do not participate in any education process is due to their fatigue, disinclination or resignation. There are claims that there is no reason for education or there is an expectation of a new-born baby as a priority.

Questions 8 and 9 take account of an individual's approach to education in terms of time perspective and attitude to changes, which are a substantial part of education. Only 33.9 % of the questioned individuals plan their education in a systematic and long-term manner. The rest claim that they make impulsive decisions based on current opportunities. It partly indicates that a short-term perspective is preferred to a long-term perspective and, in fact, it shows that the application of a selected productive element of consumption and such a viewpoint of perception are not preferred. It is obvious that up to 56 % of the questioned view changes as a challenge in terms of an attitude to changes, which is more positive, whereas 3.3 % hold the opposite view of changes, which is related to fear. The rest of the questioned takes an indifferent attitude to changes. They come as they go and the respondents do not attribute any adjectives to them or reflect on them. However, is this right? According to most psychologists and educationists, an insight, understanding, thinking, reasoning, and use of inductive or deductive logic with an understanding of constructive relations are some of the key cognitive processes of learning. They are the basis for long-term learning and recognition of the essence of various meanings on the base of which it is possible to make rational decisions or to have such ability. If people do not consider changes and do not have a personal opinion, is it good or easier for them?

The questionnaire clearly shows that the individuals who do not take part in education give a number of inconsistent answers not following up in the logical sense and forming about a third of all the answers. Only a third of them are able to keep a logical sequence of the following answers. Answers to the open questions are simple and lack arguments or ideas about the future. It is worth considering the reasons for voluntary and anonymous participation of such respondents in the research. The conclusion seems to be a help or benefit for some other person as one of the pillars of alternative theories of rationality

where rationality as limited, i.e. imperfect. Such rationality is often linked and explained with the help of the principle of satisfaction, cognitive imperfection and the above-mentioned altruism⁶ that make an individual include the benefit of other people into his or her motives of decision-making. Although the results seem imperfect from the educational viewpoint, such humanism should be taken into account when the issues of future and education are addressed as these people will be in a grave need for assistance with adaptation. It is clear that this particular stratum of the population can be in serious difficulties to adapt to future changes and they may form a weak point in the labour market and a source of unemployment.

The research proves that such people do not analyse their circumstances at all. If they do, they belong to the category of higher incomers with a net salary of at least EUR 1,000 (see Table 2). Moreover, the research reveals that the ones whose annual expenditures on education exceed EUR 600 learn mostly on a daily basis. They belong to the higher income band earning between EUR 1,000 and 1,500. Would it not be beneficial to motivate people to consider improving their own future and planning their decisions in a long-term perspective? Could the state create a mixture of instruments in order to financially enhance life-long education?

Table 2: Questions on education and an approach to it (questionnaire; questions 6, 7, 10)

Question (6) Education frequency	Answers	Question (7) Financial resources for education		Question (10) How is education financed?	
		Answers	Answers	Answers	Answers
Daily	32.1%	0-100 EUR	36.2%	They themselves pay for it	42.4%
Weekly	35.7%	100-300 EUR	36.2%	The employer pays for it	25.4%
Once every four months	21.4%	300-600 EUR	13.8%	Combined	28.8%
Once a year	7.2%	600-900 EUR	6.9%	"Free"	3.4%
Once every 5 years	1.8%	900-1200 EUR	3.4%		
Never	1.8%	1,200 EUR or more	3.4%		

Source: Own processing.

4.2 Definition of education key determiners related to future development

The most significant determiner of expenditures is the level of individual net income. Further determiners, which could be added in this context, include wealth and a debt level of individuals, or rather households, as it is directly related to the income. In terms of demographic factors, the age, family situation, phase of family life-cycle, and above all, the phase of maternity leave are provably significant. As for women, it is the maternity leave which bears a significantly negative influence on their education.

In Table 3, there are answers to questions 11 and 12 targeting the revelation of motivation for learning. They show what fields of education they focus on as well. The need for practical life, higher quality of life, effort to reveal the hidden capacity or technological progress, are crucial in terms of the long-term significance of motivational factors. The answers to this structure amount to almost 78 %, which forms favourable preconditions for the development of the productive factor represented by education. Up to 81 % of respondents focus on a cognitive field, i.e. thinking, discovering and understanding, in terms of the line of study. The respondents are able to choose more additional answers and select more specific options on how to act in terms of education to specify their motives. The purpose is to find out the time framework of their decision-making and whether they consider the positive factors which improve education and use the productive elements of consumption from a long-term perspective. This is a question of to what extent they consider the future in terms of decision-making. The most frequent answer is that selecting a particular type of education is based on the possibility to use it in the future, i.e. "I think ahead, I have a concept." Not less than 69 % of the respondents

consider it the most important variant. The second most frequent variant amounts to 37 %. However, it claims: "It depends on the content I need to learn at this moment, I am not interested in anything else and do not take it into account."

Table 3: Questions on education and access to it (questionnaire, questions No. 11, 12)

Question 11 Motivation to education	Answers	Question 12 The field of learning that they deal with	Answers
the need for practical life, the growth of the quality of life	30.51 %	the field of affects (experience, interests, attitudes, values)	12.10%
the prevention of the possible loss of job	1.69 %	the cognitive field (thinking, discovery, understanding)	81%
the effort to discover one's hidden abilities	10.17%	psycho-motoric field (motoric dexterity)	6.90%
technological progress	15.25%		
education itself	22.03%		
the rise of the demand for qualification	16.95%		
no wish to answer	3.39%		

Source: Own processing.

The above-mentioned factors are included in the so-called psychological factors. Particularly positive aspects of the answers to question 13 in relation to the productive aspect are listed on the previous page. However, one is able to reveal many negatives, such as habitual behaviour in decision-making. There are answers claiming that the respondents are used to their given place of residence and therefore they remain there. Moreover, there is superficiality or reluctance to openly express one's views. They are materialized in people's selecting what comes up and in a disinterest in looking for information about training. There is also complacency which is very frequent, i.e. within the range of 5-15. The selection of the respondents is 3 out of 12 answers in the case of this question. Subsequently, the satisfaction with training is found out with the help of the range of 1-10. The answers show that the average mark of satisfaction is 7.33, which reveals the satisfaction with the mean value. Therefore, it is obvious that training make positive contribution to people who realize that they are a sort of reward for them. It is appropriate to question the development of severity of training and the criteria of evaluating satisfaction with them, which may be the impulse for further research. If one is to consider a behavioral approach (Kahneman and Tversky, 1979), human behaviour is motivated by two main systems, i.e. the search for reward or the resentment of loss. It is necessary to examine what reward is brought by the productive elements of consumption that are materialized in education and whether there is a danger of loss. The altered state of knowledge, either the current one or the expected one in the future in the form of a better job, higher income, more contacts, career rise, etc. (Table 3), can be regarded as a reward. Moreover, the reward includes the answers to the question concerning the changes resulting from education, the possibility of the key to success, which applies to this productive factor and others as education is the key to knowledge of relations and opens the door to further possibilities and greater creativity. The numerous significantly creative and various answers focused on the open question about the contribution of education confirm this conclusion. The further developing question is whether education brings about a change. Only 65.5 % of respondents give a positive answer, whilst 34.5 % do not know or think about it. Despite describing both the positive and the negative tendencies in terms of psychological factors in a detailed manner, there is a reoccurrence of people who do not wish to go into depth. It is a category of people not characterized by any income group, yet they are the same people who refuse to clarify their motivations for education. Their attitude is rather apathetic or resentful, which may be caused by the dissatisfaction with the educational system in the SR. It can be inferred from another question. Two thirds of them are not in favour of the quality and relevance of the current school system or other educational institutions. The frequent complaints are about the lack of interconnection between the theory and practice, deeper concept, new instruments, etc. It is obvious that such people substantially think, but they do not think about a specific contribution of education in the form of change and they are not willing to

evaluate. This is confirmed in their responses to the question of whether they train logical thinking and memory, where 65 % give positive answers.

The following table (Table 4) shows the total results of answers of the complete sample of respondents. Training of logical thinking is practiced by as many as 71.19 % of respondents and training of memory is practiced by as many as 74.58 % of respondents. If one is to examine the sample, which is mostly comprised of the very same people, i.e. the same positive answers in both questions, it is found as very positive in relation to the productive factor of education. When the answers are related to income, an interesting fact is revealed. Training of memory and logical thinking is refused by people within the income range of EUR 500-1,500, which is a contemporary middle-class income. This class ought to be regarded as substantial and crucial for economics.

Table 4: Questions aimed at education and an attitude to it (questionnaire, question No. 20, 21)

Question No.20 the training of logic	Answers	Question No.201 The training of memory	Answers
yes	71.19%	yes	74.58%
no	25.42%	no	24%
Answer declined	3.39%	Answer declined	1.69%

Source: Own processing.

The urgency and justification of this topic, i.e. the complex comprehension of education as a productive element of consumption, is linked to dealing or ignoring of numerous long-term problems in the SR. The publication by Newig et al. (2019) seems interesting in this context as it examines the production aspect from the systemic perspective. It involves a failure, bankruptcy management, relief of the sustainability of transformation in the context of crisis, systematic learning and learning from failure, intended destabilization of unsustainable institutions, inevitable decline, and active decision. They are concerned with the effort to use up the potential of institutional dynamics, which has been ignored so far. It emphasizes a long-term perception of the interventions and solving of problems emphasizing the wide range of productive functions that can be used in a targeted way in the real conditions. Such an approach tends to 'the prejudice of problem management', which has been identified by Mayntz (2004). This productive aspect is partly identified and examined by other authors, such as Munoz-Sanchez and Flores (2015, pp. 171-192). Their perspective of the change of characteristics of consumption in the sense of materialism and post-materialism is only examined within the Spanish conditions. The publications are often focused on the ecological aspect in terms of productive aspect or they are viewed as a generator of the change of landscape development, e.g. the work of Menendez et al. (2017, pp. 68-74). The complex based research of the subject has not been published yet.

Staněk and Ivanová (2017, pp. 5-6) refer to future development when they claim that a great many changes are beginning and bring about both challenges and many risks. Considering the challenge perspective, there is, for instance, a creation of the so-called personalized economics, provision of the quality of services saving human creativity, the process of environmental transformation of society or the development of services related to personal development. Further business and education possibilities are revealed for companies and their employees in this way when education is more effective. There are changes of information, warning systems, risk solution related to information leaks and processing. They are directly related to the process of preparing employees for such changes in both professional and private spheres. It will be very demanding for them and they will have to adapt to such changes and to learn to accept them in the fastest possible manner. It is obvious that there is a certain mental barrier which is often mentioned with the potential presence of investors.

There will be changes in the society in terms of philosophy and psychology that will deal with two key principles, i.e. personality and complexity. It will require a new quality of cooperation on business and personal levels, where the application of such changes is closely connected to education and informing of particular individuals. Behavioral economics seems to be a solution in terms of theoretical instrumental movement. It is able to help to work more effectively, better and more reasonably, for it is based on self-understanding as well as an understanding of decision-making mechanisms. However, the continuous process of education remains crucial, since it is not possible to deal with future challenges in connection with particular individual or instrumental public policies.

Considering the future and the justification of this research, it is appropriate to point out to the OECD's opinion that up to 70 % of labour positions are threatened by automatization and employing robots (Nejedlý, 2018, pp. 21-23). These conclusions have been confirmed by a number of professional papers and blogs. To quote but a few: "If Slovakia wants to deal with the inevitable automatization of numerous professions and to transform from an assembly workshop into a producer with a higher value added, it must increase the investments into the people. The economy is increasingly based on both the human and physical capital, which is in the form of machines, roads, and factories. Wealth will be in the heads (Lehuta, 2019, pp. 18-20)." The previously mentioned publication reflects on the information about the use of cognitive skills, which is confirmed in a broader view in this research as well. Also, there is a statement that refers to the relation to income and claims the further: "An additional year increases wages in professions requiring cognitive skills by 3 %, while a year in the manual job increases it by mere 2 % (Lehuta, 2019, pp. 18-20)." This research clearly shows the scope of applying cognitive, manual and psycho-motoric skills in education. It is, without any doubts, helpful in terms of the adjustment of public policies dealing with the support of education, which is crucial for the SR.

5 Conclusion

The objective of the paper was to find out and verify the importance of determinants that are crucial in deciding about the specified productive element (i.e. education). It was achieved with the element's use in household, or individual, consumption from the perspective of its future significance in the SR. Additionally, the productive element and the approach to it were characterized. It enabled the author to examine the current situation and hence to reveal its importance within the context of the country's future development.

The analytical part consisted of examining the current situation. The respondents' answers indicated a formation of positive conditions for the development of the productive factor of education for most participants. Although the active application was confirmed only in the case of one third of participants, the results seemed positive. Moreover, it was discovered that the bigger the income, the higher the expenditures on education and the bigger the activity in education were, which enhances motivation and an effort to learn. Thus, such individuals have a better and more objective concept of the future eventually and retroactively affecting their income, wealth and the development of creativity, which is currently viewed as the key factor of success in relation to the future challenges for the individual groups of participants. The research also confirmed that all of the three psychological movements, i.e. behavioral, cognitive and humanistic, are partly right in their concepts of human behaviour and successfully clarified the subject of decision-making about the productive element discussed. Apart from that, it opened up space for the possibility to define a formation of desired behaviour of particular groups of individuals and their size in the conditions of the SR.

However, there is a risk of the so-called behavioral failure, i.e. adopting irrational decisions, when an individual endangers his / her long-term welfare and the effect of productive elements through his / her decisions. It is, therefore, necessary for one to

be aware when decisions about education and expenditures on either private or public education are made. The approach which is irrational is predictable and provable (Lehuta, 2019, pp. 18-20). Such facts need to be also considered in case of forming measures, government programs and policies that account for inappropriate behaviour of citizens, i.e. groups, who may face the behaviour failure. It is recommended for the policy-makers to analyse the individual problems in detail, particularly the aforementioned falling standards, inadequate expenditures or negative attitudes to education. This issue is crucial when essential changes are taking place. As well as that, it clearly reveals that there is a necessity for an adaptable and more empirical approach, a greater financial and conceptual perception of education, a development of motivation, information distribution, long-term monitoring of individuals and risk groups for the purpose of educating and improving their position in the labour market with regard to the future.

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