

Innovation – Populist Slogan, Why?

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Nowadays, innovation is perhaps the most widely spoken global keyword in the field of economy. Everyone talks about innovation and the European Union already for more than a decade, has wanted through innovation to catch up with and take the leading position in the world. However, what is the reality? Europe still has difficulties with the pace of economic growth, which according to many is joined combined with innovation and knowledge. Asian countries often set a price of an innovated product of poor quality and with no added value that includes huge cost of efficient marketing and aggressive advertising. Therefore, is innovation everything what is called this way? Though the world controls the speed and acceleration of changes, it does not mean necessarily an advantage or positive effects. And evolution of a star in a supernova and then a black hole is in the final stages accelerated in an unusual way.

The inspiration for our article was slanted to cheap using the word “innovation”, just because it is a European priority. We just drew from his knowledge and life experiences.

Keywords: innovation, education, the hierarchical system, competence model training system, value system, incentive system.

1. Introduction

Nowadays, innovation is perhaps the most widely spoken global keyword in the field of economy. Everyone talks about innovation and the European Union already for more than a decade, has wanted through innovation to catch up with and take the leading position in the world. However, what is the reality? Europe still has difficulties with the pace of economic growth, which according to many is

joined combined with innovation and knowledge. Asian countries often set a price of an innovated product of poor quality and with no added value that includes huge cost of efficient marketing and aggressive advertising. Therefore, is innovation everything what is called this way? Though the world controls the speed and acceleration of changes, it does not mean necessarily an advantage or positive effects. And evolution of a star in a supernova and then a black hole is in the final stages accelerated in an unusual way.

2. A historical perspective of the innovation

In the history of the human community it has been constantly repeated that each period brings its “priorities for further development.” In today’s dynamically developing world, such a priority is innovation. Through the media this word reaches recipients who do not know its exact meaning and is “intravenously injected into the veins” of the general and professional public. It can be said that when a speaker does not use at some forums the word “innovation” in any context, the speaker is not “in” and he or she is automatically classified into the category of mentally underdeveloped group of the human population.

The history teaches us “too many cooks spoil the broth“. In our essay we do not want to negate the importance of activities in favour of the development of mankind, which has always been an expression of human skill and abilities. In the business and services these are mainly rooted in the benefits that meet human needs and interests. In economic practice such a procedure has brought about a higher level of competitiveness of products and processes and generating higher profits.

In today’s form innovation is “fashionable life belt for further development” and is implemented in the EU programmes, e.g. in the document “Horizon 2020”, even though the previous one contained in the Lisbon strategy completely failed, and has not reached the expected successful aftermath. The primary actors in the area of innovative entrepreneurship have become small and medium enterprises, in particular because of their relatively quick ability to recognize and take advantage of business opportunities, assuming a greater proximity to customers of these firms. On the other hand, as a result of massive investment in the infrastructure of European science, many assume that the sources of these new practices, processes and products will be the application of knowledge of science and research in these particular small and medium-sized enterprises.

As Halada concisely comments on the current situation: “innovations today often arise in cooperation with customers, suppliers, universities, research organisations and also with competing partners”. Matching the research and development

costs with sharing of roles, massively “modernises” production processes as a service and it brings also new types of non-technological innovation. The data obtained from the survey in 11 OECD countries indicate that the so-called “Gazelles” – new innovative companies with a fast (at first sight rocketing) productivity growth and volume of production, which can instrument as a prototype of the small and medium-sized enterprises and account for less than 1%. These conditions despite the different “measures” by the EU still persist. Obstacles to the implementation of innovation in small and medium-sized enterprises, have been also known for a long time. The analysis suggests that the obstacles to the development of innovation in small and medium-sized enterprises do not stem from worse access to financial resources, but that one of the crucial obstacles is the lack of suitably qualified human resources, both in research and in managerial positions. From our own experience in our business environment, we can conclude that a patent or an invention is not “the right medicine” for a successful innovative activity in small and medium-sized enterprises. As well as hypertrophy of the accent on the contracting authority the sophisticated science and research results, which small and medium-sized businesses should develop as an inspiration and “a window of opportunity” for writing under their period to the respective business plans.

What therefore appears as necessary? At first it is about the need to improve the skills of workers in these companies. Especially developers and managers should be able to quickly recognize the ongoing changes in the external environment of the company and adapt the processes and products to this new situation, therefore, innovate. But this means, i.a., truthfully analyzing the school system, which is supposed to train and prepare the necessary tools for the missing skills, which are necessary for positive innovation activities and repressed by this system from an early age, such as creativity, etc.

3. Innovation in education systems?

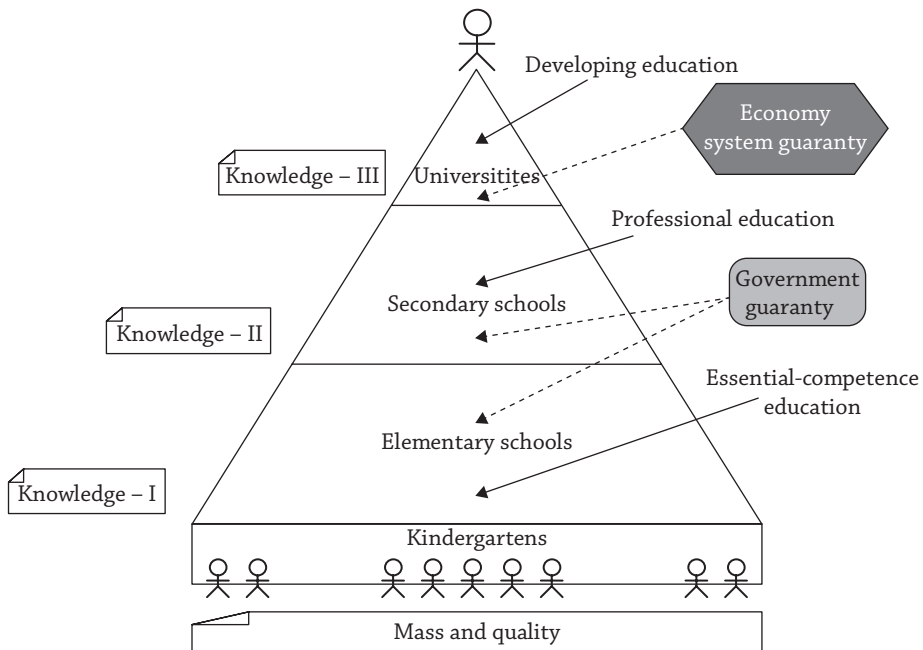
We are not sure whether the word “innovation” is the right expression, since in most cases it actually goes back to already known principles and procedures. Briefly recall the “Czech” procedure to reduce the extent of mathematics, physics and other subjects¹.

Therefore, the basis for changes for the better (which is just innovation) must be first and foremost a “rediscovery” of natural authorities and requesting them to

¹ Ponický, P., Less is often more – the collapse of the education system after a quarter-century of transformations, In. Slovak education in times of crisis and systemic changes, Bratislava, Slovakia, 2012.

implement necessary changes concerning co-responsibility in the whole range of educational and research “space” without political authoritarianism of incompetent ones. National system of education should be rebuilt. However, this does not preclude the use of the best “educational, scientific, and management,” practice from the past. The system of education and science (*it includes science, since at the level of universities it is an integral part of their key activities*) should have the properties and elements of system entities, in particular, established and functioning network of links in the file defined and measurable connections, functioning in each of the entities/institutions, but also effectively functioning in the system as a whole. So, as far as possible the identifiable model should have the least restriction “filters”, but certainly the most motivating incentives and resources (*let’s imagine a system like the balloon and its entities as molecules in a closed air balloon indefinitely, we can’t inflate [burst] or deflated [burst] and under ambient pressure deforms and adjusts the direction of the load, in real position, but only to a certain extent it falls within a certain limit [if we do not extend the permissible voltage or stick to the following crushing nature of molecules/entities contained in the balloon]*). In the nature there are hierarchical systems, because we are a part of the nature, and not its masters. The man should be the logical creation of hierarchical systems, which is presented in Figure 1.

Figure 1. Competence model of education system



Source: Own study.

Table 1. The education system should look like the following

Level	Hierarchy	Type of school	Diversity
I.	Level of education system	kindergartens elementary schools	0 – 9
II.	Level of education system	secondary schools	1 – 4
III.	Level of education system	universities	I. + II.

Key:

I. (Means 1. ÷ 5. Degree of university) + II. (Means 1. ÷ 3. degree of doctor study programme focusing on excellence science)

Source: Own study.

A fundamental requirement of viability, effectiveness and efficiency of the education system is, in our opinion, the diversity regulated and focused on the needs. BASAL (base) education is – as **the life need**, the secondary education as **economic need**, and higher education – as **a developing ability**. A huge mistake was in the spirit of “revolutionary frenzy by knowledge”, denial of knowledge corresponding to the skills of people and, in particular, their needs and literally opportunistic proclaiming and persuasion of the community that “today is the time of knowledge of the highest rank”, which allegedly allows only higher education and, therefore, is the need to ensure that in a mass capacity. Usually opportunism would be shown and the right face of reality reveals its harmful effects. Today the reality follows us, a school does not generate uniqueness, it kills talents, it destroys the school, unfortunately, does not generate adequacy of the training on the job and not developing nor skills. Many have **swapped information for knowledge** and constantly “pushed” on increasing information volume, especially in modern or popular disciplines, but somehow they have forgotten that all these “unorthodox” concepts are the fruit of a classical humanities or natural sciences.

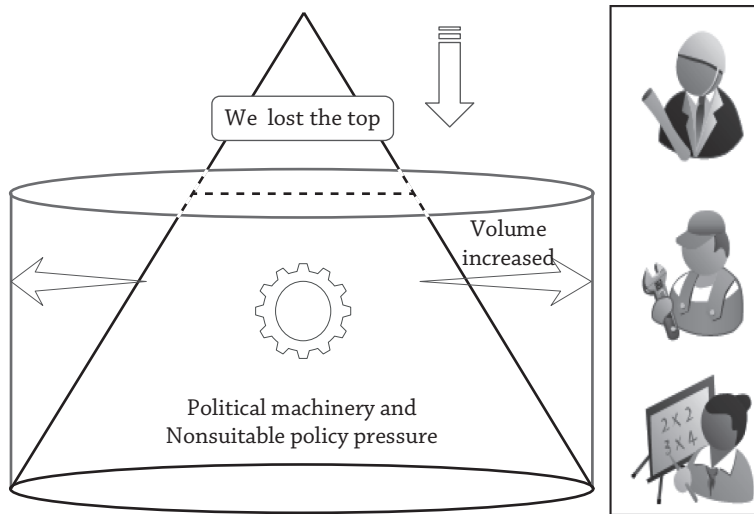
The weakening of physics, mathematics, history, etc. and comparative knowledge/ignorance of generalising these disciplines into the philosophy leads to the fact that the man just becomes only a user of the results of application of knowledge and skill levels of others (*those well prepared – which today is obviously the case almost in the whole Asia*).

Levelling of education/knowledge is illustrated in Figure 2.

In this context, there is a very **urgent question of the sustainability** of the system thus drawn up. If we are losing intellectual leaders, significantly we are **losing competitiveness** as well. It is clear, and not just in times of crisis, that the **method of financing** practised roughly since the mid-1990s **is unsustainable**, especially because **it distorts the value and incentive motivation system** of the educational system. Such a system is materially untenable, because technological progress generates spiralling up “impossible” demands (which negatively affects

just social systems of countries, because the absolute majority of these requirements are financed from public budgets). Therefore, **the stimulus and incentive model** of effectively functioning **school system should be based on the so-called inverted pyramid**, i.e. from the national hierarchy, physical and financial priorities have been doing performance model leading to the educational system.

Figure 2. Levelling (by performance) of education system in Europe



Source: Own study.

Simply, the school system should return to the model of the functioning of the nineteenth and the first half of the twentieth century, which was the largest in the shift of humanity, focused on exploring the nature and its laws, along with the ability to transform this knowledge into the system of the needs of the people, or to develop the ideological platform of culture and morals, in accordance with the system of nature from which we come. But then the question is whether it is actually the innovation, if we try to return to past principles? On the example of the education it can be seen that not every upgrade or change is beneficial.

Therefore, we would like to generalise that not every change is innovation, because innovation should bring positive changes, the positive spiritual and material effects for humanity as a whole and for individual citizens. We propose changes largely replicating the past solutions, which cannot be identified as an upgrade, and despite the fact we expect significant positive effects in education and readiness to live and work and actually even the return to knowledge and skills equivalent to capabilities of people. On the contrary, the last innovation (*about 20*

years), in the education sector, have brought more negative effects, lower readiness and skills, however, it was marketing and advertising that were invested billions into. Mental abilities of people, with a history of human population, have had approximately the same hierarchy as well as the capacity, therefore, they cannot be changed by the fact that, in particular, that politicians want such a change, but they are determined by the limited capabilities of each human individual.

4. Meet the needs or innovate?

The question above of this part of our paper is related to the findings, relating to innovation in education. Indeed, in every place on Earth, even in very poor countries, there is ever-present marketing and advertising of modern technology, modern approaches, higher education, better results, higher performance, etc. Actual change or improvement in the past there was a product of the procedures and methods that we today call innovation. Thus, in theory, this is true all the time.

What is the problem? Innovation, innovative has become synonymous with modern, more efficient, better, prettier, etc. Let us at the beginning give a simple example, which would show the perniciousness of distortion of words which we used to call “terminus technikus”, in this case innovation.

We believe that a person develops as a whole, with certain participation of the physical and mental capabilities and options. Generally and historically speaking, a man from his racial brethren (*mammals and primates*) is separated just by innovation that allows better use of the physical *confines* (*helping with tools to facilitate the work and more options to customize their surrounding for greater efficiency of physical survival*), so mental skills (*mastery of simpler procedures and learning as well as plenty of time to think, by shortening the working operations necessary for the survival of the work*). If we simplify, we can conclude mutual causal link between need and innovation.

Let us consider the example. A very simple device-grinder (meat grinder) has been used in households for several centuries. The device makes use of many long known principles (*the wheel, lever, shaft, helix, thread*). Advertising motivates us to shorten the “unproductive” times even in private households. Instead of proven manual grinder you would buy the electric one. It is true that, e.g., you shorten the time of the preparation of dinner, because the electric meat grinder makes it faster, but!

- It consumes electricity, you have to pay for,
- Because you need more money, and you need to earn (more money = more work),
- The hand appliance will last a lifetime, the electric one only a few years,

- The electric grinder does not require physical fitness and stamina, but
- If you want to keep fit, you would buy a ticket to the fitness centre,
- So you again need more money, more work outside your home,
- Such a pressure often generates stress and this affect the physical and mental health.

From our example it is apparent that such a repetitive cycle actually has not solved anything significant, just pulled out more money from people in all spheres of life (doctors earn, because they have stressed and devastated patients, owners of the fitness centres earn, even the fitness obtained in the gym is not natural, and often physically devastating and as well as manufacturers and suppliers of electrical energy have profit). Maybe some of you will say it is progress! Therefore, you should try to compare this situation with the historical parallel for several thousand years of human civilization, which has upgraded/innovated for the entire time. Most of these innovations did not have breathtaking rate, but most of mankind has moved forward. So what is the essential character of the current accelerated time? Is the change of the status of a human being important?

We will leave the answers open to all of the readers, but we will not omit the prices for “new values” that the period of innovation brings us. Mankind, however many millions of people are hungry, has have nothing to wear, and we are subject to the freak of the weather (even without a roof over your head), have the largest energy consumption in its history, have the largest material consumption in its history, has the biggest problem with the waste it generates. Where and from where are these products and needs? They are from the Earth and they go back to the Earth or in its surroundings. These facilitates in any case do not have evolutionary character, and even though Earth is “living organism”, its adaptability is marginal and, in particular, has a relatively long interval. This procedure generates more energy needs and energy resources are limited.

Thereby, we propose a return to the natural innovation history and evolutionary strategies (e.g., to reduce the energy consumption of products is a natural evolutionary process, but it shall not be accompanied by an exponential increase in the number of such products). The example is here again. Mankind is growing in number, therefore, the growth leads to the accumulation of people, despite the fact but mass public transport does not grow by contrast, individualization is growing (e.g., in 3-percent man households there are 3 cars, often used concurrently). Let us imagine that this process can be taken on in “theoretical perfection”, and thus on the Earth there are 6 billion cars moving. Let us go back to the beginning and the title of this section, and join words innovation – need, or innovation – possibility and the third innovation – marketing trick!

5. Is each change an innovation?

It is evident that the word “innovation” is used everywhere, and very often without a deeper thinking, with a clear intention to make the most of that in the spirit of “showbiz philosophy”. We think that it is a fundamental mistake, in particular in the territories, where “American culture” is non-organic part of the cultural history of the people. This implies that innovation often becomes just a marketing tool, and then it reminds the promises of politicians, who before every election promise everything to everyone, and if the citizens “buy”, for four years they have their future secured. Marketing works the same way, it is not essential if the advertisement is a true image of the product. It is essential that people are buying it. This policy says – populism. Therefore meeting of the needs of customers is not the top priority but it is the seller’s profit, manufacturer’s earnings, advertising agencies, etc. That could be a reason for shortening of the lifetime of the products themselves, to maintain and, if possible, to increase the volumes of production of products. Everybody knows products “for eternal time” (examples such as the light bulb with the drying capacitors in starters in saving light bulbs, bearings with a lower load carrying capacity, using the cheapest materials, etc.) Innovation is called a new shade of colours, replacing reliable materials with less reliable, the use of long-known principle in unusual conditions, etc. We believe that any change, if the user does not provide the benefit of objective need to be determined cannot be called innovation.

6. Conclusion

In conclusion, let us call on consumers, scientists, designers, and business public to return to natural functioning balance. Violation of the balance spurs the crisis conditions. The imbalance is greater, the crises are more massive and more frequent and natural environment is devastated. Forget the bottomless pockets, bottomless wells, “infinite” levels of the game, the air that stays the same forever, the temperatures pleasant for our life, etc. Or the Sun is not an endless source of energy, everything is non-renewable and finite. Let us accept that and live accordingly, other way inexorably raises the “infinite” growth of costs and unavoidable collapse is just delayed. Although we know that we cannot live forever (mankind), with that wisdom we can live longer.

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