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REFLECTIONS ON THE PUBLIC SECTOR OF UKRAINE UNDER THE ERA OF INNOVATIONS

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Abstract. The purpose of this article is to provide reflections and develop discussions on the issue of innovations originated from the public sector of Ukraine. The article argues that modern transformations relate to every aspect of life and force digitalization and the application of innovations in public sector of economy. The conclusion of this article calls for the government to be agile and react quickly to challenges provoked by current global and domestic situation.

Keywords: public sector; Ukraine; innovation; digitalization; finance.

“Whilst we deliberate how to begin a thing, it grows too late to begin it.”

Marcus Fabius Quintilianus (c.35 – c.100 AD),
a Roman educator and rhetorician

Introduction. Several centuries ago, nobody could imagine what the time ahead would bring to people. Many tried to predict the future, including politicians, scientists, fiction writers, musicians, and ordinary dreamers. And while many forecasts turned out to be just insane thoughts, some of them became the present reality – not to mention the crisis caused by a novel respiratory disease COVID-19.

As the evidence suggests, today’s world is extremely hasty and digitalized. This may be noticed from everything since the society itself is changing. Hardly can one be spotted dedicating time for writing too long sophisticated mails to the colleagues or friends. Everything is shortened and simplified now. This happens mainly because people appreciate the time too much as they have no right to fall behind the pace of innovations and global change processes. The life forces us to accomplish things fast as well as with high quality. Therefore, he who wants to be competitive, needs to be immensely productive



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in terms of both rationality and creativity, even though these two categories seem to be different and opposite to each other. The present realities of widespread social isolation due to quarantine measures also have the impact on human beings driving digitalization times faster.

Innovations, Digitalization, and the Public Sector of Ukraine. But why do we face so many transformations nowadays? Why do many professions become obsolete now while others start to exist creating the surplus along with the deficit of specialists? What makes us either workaholics and upbeat or depressed and desperate in spirit? The answers may lie in technology, precisely in technological revolutions, and the human nature to use it in order to satisfy the needs. It is well known that since 18th century, the humankind has gone through four of them, and as a result of the last revolution, which started with the third millennium, we have (among others) such advances as robotics, blockchain, artificial intelligence, 3D printing, and Internet of Things.

It may seem contradictory but the products of current technological revolution replace, complement and reinstate people at work at the same time [1]. It is interesting that not just routine work is being cut out but also the one which requires human interaction and even the application of art [2]. Therefore, we have no choice but to advance in intellectual and leadership skills keeping in mind the likelihood to become useless at our present jobs and deeply needed in new areas of work. And here latest events with the global pandemic are the blatant evidence of it.

In fact, there is another name for the fourth industrial revolution. The period we live in is also known as Industry 4.0. One advisory board of the German Federal Government, namely Industry-Science Research Alliance, coined this term having given it as a title to its strategic initiative in 2011 [3]. Since that time, particularly the public announcement of the strategy, the scientific and politician elite all over the world has started to take into consideration the importance and inevitability of the forthcoming positive and negative changes caused by technology. It may be summed up that the fourth industrial revolution has brought us fusing technologies; disruption to jobs, skills, and business environment; the possibility for governance to be agile; innovations and changes in productivity; the transformations of ethics and identity; the reconsideration of security and conflicts issues; and, unfortunately the inequality enlargement [4].

It is possible to track country's progress with the help of the data provided by the Global Innovation Index (GII) which is an annual ranking of different countries. In 2019, the first five most innovative economies were Switzerland, Sweden, the United States of America, the Netherlands, and the United Kingdom [5]. Despite the economic slowdown which took place last year around the globe, the situation within innovation area turned out to be blossoming,

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although not everything was perfect – the increase in protectionism within technology sector can even lead to innovation diffusion [5]. To compare, in 2018, the top 5 of GII list were Switzerland, the Netherlands, Sweden, the United Kingdom, and Singapore [6].

In the year 2019 ranking, Ukraine takes 47th place out of 129 available, and it is noteworthy to mention that Ukraine was identified as a country above expectations for level of innovation development within the category of lower-middle income countries [5]. The overall trend for Ukraine indicates that the country is working on the improvement of its innovation development steadily (Figure 1).

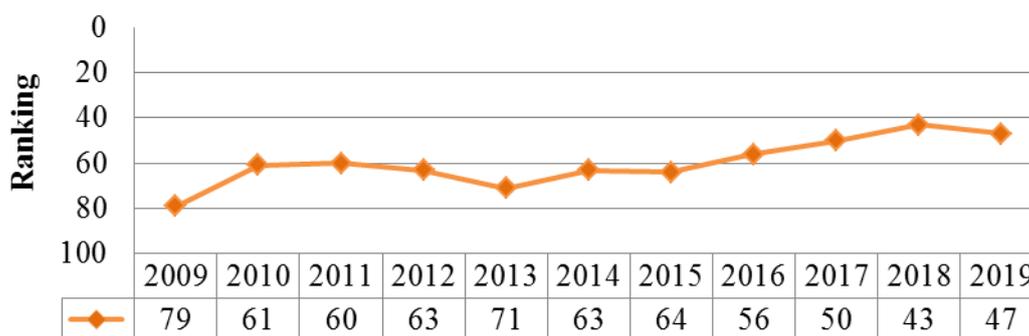


Fig. 1. Positions of Ukraine in The Global Innovation Index rankings from 2009 to 2019

Source: developed by the author based on data retrieved from <https://www.globalinnovationindex.org/>

As Figure 1 demonstrates, there is a gradual increase of positions held by Ukraine in GII from 2009 to 2019. It is an achievement for Ukraine that it is number 2 within the group of lower-middle-income economies in GII 2019; however Ukraine was a leader in this group in 2018 [5]. This means that our country aims at better results. However, there are several weaknesses which hinder the Ukrainian progress, especially, they relate to the global corona crisis, domestic unstable economic and political environment, cases of corruption, the weakened rule of law, frail ecological sustainability, etc. And according to the International Monetary Fund [7], Ukrainian projected real GDP will shrink by 8,2% in year 2020, but it is forecasted to increase by 1,1% in 2021 and by 3,0% in 2022.

It is important that the time of transformations demands from the government and the public sector actors to adapt quickly to the new state of affairs. Governmental institutions have to foresee the future opportunities and threats and act swiftly but with consideration. Since most innovations appear within private sector, the role of the state is to support these innovative initiatives as well as to promote innovations in the public sector of economy.

The issue of new technological age enforces financial digitalization and goes on all levels. Essentially the digitalization concerns the state with its government and the public



sector of economy as a whole. The existing globalisation of different types of financial capital undoubtedly has been fostered by the achievements of the fourth technological revolution. For the reasons of current change processes, development of innovations and the situation of financial sector of Ukraine, the issue on “How the public sector of Ukraine might act in Industry 4.0 era in order to benefit from innovations and financial digitalization” should be addressed as fast as possible.

It may be claimed that apart from the current domestic economic problems and global economic recession because of the coronavirus, borderless digital economy of the Industry 4.0 is challenging Ukrainian financial sector more and more explicitly. Thus, the ways for Ukrainian financial system to function more effectively through its public sector’s agility and quick acceptance of the products of contemporary transformations should be developed by governmental institutions (Figure 2).

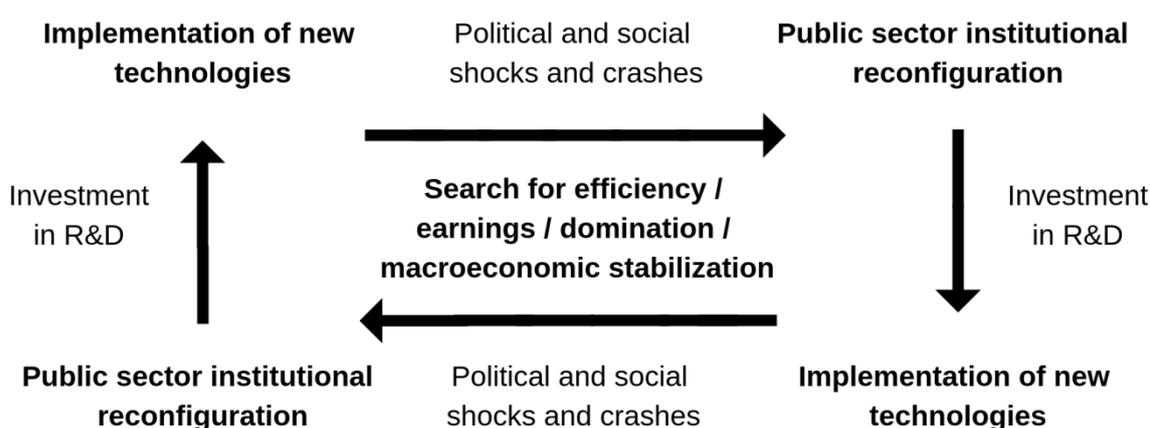


Fig. 2. The spiral of complexity of public sector under innovation processes and the time of the global economic reset

Source: adapted by the author from [8].

It is essential to realize that the successful implementation of innovations requires the understanding of why it is so important to have a clear picture of the innovation activity, process, project, and strategy. It may be stated that the core elements here are human and financial resources. People are those who generate ideas and refine them to perfection while money backs the launch of innovations. Also, the significance of political, regulatory, and economic environmental is huge. Therefore, many factors are to be considered when evaluating the innovation capacity.



Usually, governments may be risk-averse to some extent to innovations (also due to the bureaucracy) and they may not have a comprehension of what exactly they should innovate – regulatory models, services, policy design along with its implementation or something different. Nevertheless, public sector innovation is not limited to public administration but concerns state-own companies and state projects as well.

In times of global competition combined with worldwide cooperation, Ukrainian government should make every effort to accept new ways of manage the public sectors and its finance. However, despite the emergence of new generation of professionals, innovation and digitalization still creates the challenge – a talent crunch. This is happening due to the fact that the modern professional needs to have experience both in their field of expertise and Data Management and be intellectual capable to digest complex information. The training and development of the existing staff (lifelong learning), the relevant novel university courses and programs are the solution in modern conditions.

Conclusions. It may be stated that the hesitation towards the acceptance of new technologies may cost a lot for modern society and the economy. Therefore, the government of Ukraine should be focused on what is coming and meet already existing era of innovations and digitalization fully prepared. In addition, a sharp economic downturn during the COVID-19 crisis provides opportunities to make changes within the public sector. And with innovations it may be possible to reset the economy most efficiently.

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РЕФЛЕКСІЇ ПРО ПУБЛІЧНИЙ СЕКТОР УКРАЇНИ В ЕПОХУ ІННОВАЦІЙ

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Анотація.

Мета цієї статті – представити роздуми та розвинути дискусії щодо питань інновацій у публічному секторі України. В статті автор стверджує, що сучасні трансформації стосуються кожного аспекту життя та спричиняють посилення процесів цифровізації та застосування інновацій у публічному секторі економіки. Висновки даної статті стосуються закликів до уряду до гнучкості та швидкого реагування на виклики, спровоковані нинішньою глобальною та внутрішньою ситуацією.

Ключові слова: публічний сектор; Україна; інновація; цифровізація; фінанси.



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