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Future Progress of Science, Technology and Innovation: Public Perception

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Abstract: ***The importance that society gives to science, technology and innovation accordingly reflects the culture, well-being and economy of the country. At the same time, this has a crucial impact on the opportunities of societal development. The focus on studying the attitude of society towards different aspects of science, technology and innovation and its dynamics is increasingin many countries. Nevertheless, similar studies have not been carried out in Georgia until now. The aim of this research is to explore public perception of development of science, technology and innovation among Georgian society.The study revealed that the advantages associated with the development of science, technology and innovationare acknowledgedin Georgian society. Various areas where society expects improvements in the next 15 years have been identified. Lastly, the areas of health and medical care and creation of workplaces have been defined as the top priorities for the development of science, technology and innovation.***

Keywords: science, technology, innovation, public perception

1. Introduction

The countries where science, technology and innovation (ST&I) are focused towards knowledge-based economy have a higher economic growth and welfare [1, 2]. ST&I support the development through solving specific problems and improving knowledge.

The potential impact of ST&I on the society is very complex and multidimensional. The importance that society gives to ST&I accordingly reflects the culture, well-being and economy of the country. At the same time, this has an important impact on the opportunities of societal development. In many countries (USA, EU, UK, Australia, New Zeeland, Japan, Malaysia, India) the focus on studying the attitude of society towards different aspects of ST&I and its dynamics is increasing [3-12].

In 2014 European Commission (EC) carried out a survey on public opinion of European Union (EU) society about the future development of science, technology and innovations; additionally, the research focused on the perception of science, technology and innovation by society [13].

The research identified the

- Society's priorities for science and technological innovations for the next 15 years;
- Impact of science and technological innovation on various fields having priority for the society e.g climate change, protection of the environment, civil safety, creation of workplaces, health and medical care, etc.

The results revealed that the majority of respondents in EU countries learned science and technology-related topics at different stages of their life: school, college, highereducation institutions. In EU countries, the major priority was health and medical care and creation of workplaces and overall the following fields have been nominatedas the top priorities:

- Creation of workplaces by 16 countries;
- Health and medical care by 10 countries;
- Fightagainst climate change by 2 countries.

The majority of therespondents believe that over the next 15 years the development of science and technology will have a positive impactin general, and in particular on the following fields: health and medical care, education and skills, transport and transport infrastructure, energy supply, environment protection, fight against climate change, quality of living.

The survey carried out by EC in 2015 aimed at studying the public perception of science, technology and innovationin EU countries as well as the attitude towards innovations that will be implemented in the following areas over the next 15 years: housing, health and medical care, communication and interaction and environment [14].

The survey revealed the positive attitude of citizens towards science and innovative technologies as well as their consciousness of consequent downsides.The respondents indicated Internet and mobile phones as one of the most important examples of science and innovative technologies.

Similar studies have not been carried out in Georgiauntil now. Therefore, the aim of this research is to explore public perception of development of science, technology and innovationin Georgian society.

2. Methods

The research has been carried out in 2019 using quantitative methods. A special questionnaire has been elaborated for this research based on the earlier EC Surveys related to science, technology and innovation. For the data collection a mixed method was used, including face-to-face interviews and online interviews using e-platform. Respondents have been randomly selected. The survey covered the population in the capital, different cities and villages. The data of total 1027 questionnaires was analyzed. The results have been processed in IBM SPSS Statistics 21.

3. Results and Discussion

The majority of respondents are femalewith high education.The majority of respondents indicated that they had never worked in the areas related to science, technology or innovation. According to the results of the research the majority of respondents use Internet on a daily basis 68,1% and minority rarely 14,8%. The majority of respondents use home Internet30,7% and mobile Internet 22,1%.

Firstly, the respondents identified the fields that require focus in the process of developing science, technology and innovation; furthermore, respondents defined how feasible would it be to improve the identified fields in the next 15 years via using science, technology and innovation.

The respondents defined the following priorities forscience, technology and innovation for the next 15 years: health and medical care 66%, creation of new workplaces 47%, education and professional development 46%, fight against climate change and care about environment 36%, availability and qualityof food 30%, civil safety 29%.

The following areas have been less prioritized by the respondents: quality of housing 18%, personal data protection 13%, reduction of inequality 11%, transport and transport infrastructure 7%, increase of energy supply 5%. The results of research demonstrated that similar to EU countries, health and medical care as well as creation of new workplaces representthe main priorities for science, technology and innovation development among Georgian society.

According to the respondents, in the next 15 years science, technology and innovation willhave a positive impact chiefly on the following fields: health and medical care 92%, education and professional development 91,1%, transport and transport infrastructure 72,1%, quality of housing 68,9%, availability and quality of food 64,8%, creation of new workplaces 62,4%, civil safety 59,5%, protection of personal data 51,7%, increase of energy supply 51,%, reduction of inequality 35,5%.

In the survey carried out in EU countries the results identified that the following areas will be positively impacted in the next 15 years: health and medical care 65,5%, education and professional development 60%, transport and transport infrastructure 59,9%, quality of housing 50%, etc.

The results of our study shows that the expectation of positive impact is higher among Georgian society rather than in EUcountries.

Similar to the results of survey carried out in EU countries, this research revealed the positive attitude of society towards science and innovative technologies as well as consciousness about possible downsides as well. Almost half of the respondents46,5% consider that the general impact of science, technology and innovationon society is mostly positive. However, part of the respondents 39,2% think that science and technologies can bring moral injury to people.

According to the respondents the preferred directions of science, technology and innovation for country's development must be defined by a scientist whilst considering public opinion 37% or by a representative of a government 24,4%. The same statement is true for the respondents, however without considering public opinion by scientist 15,2% or the representative of a government 14%. Similar to the results of researches carried out in EU countries, our research illustrates that the majority of society considers that their opinion must be respected and they must be involved when taking decisions in the process of developing science, technology and innovation [15].

4. Conclusion

Georgian society is conscious of the advantages associated with the development of science, technology and innovation. Various areas in which society expects improvement over the next 15 years have been identified. Lastly, the areas of health and medical care and creation of workplaces have been defined as top the priorities for the development of science, technology and innovation.

References

[1] Hornidge, Anna-Katharina. "'Knowledge Society' as Academic Concept and Stage of Development — A Conceptual and Historical Review." In Beyond the Knowledge Trap: DevelopingAsia's Knowledge-Based Economies, edited by Thomas Menkhoff, Hans-Dieter Evers, Chay Yue Wah and Eng Fong Pang, New Jersey, London, Singapore, Beijing: World Scientific,2011, pp.87–128.
[2] Bechmann, Gotthard, VitalyGorokhov, and Nico Stehr, ed. The Social Integration of Science: Institutional and Epistemological Aspects of the Transformation of Knowledge in Modern SocietyBerlin: Ed. Sigma, 2009.
[3] EC. Eurobarometer. List of surveys A-Z, 2018. National Science Board. Science and Engineering Indicators 2018. NSB-2018-1. Alexandria, VA: National Science Foundation, 2018.
[4] Council of Canadian Academies. *Science Culture: WhereCanada Stands*. Ottawa (ON): The Expert Panel on the State of Canada's Science Culture,Council of Canadian Academies, 2014.
[5] Reddy V, Gastrow M, Juan A, Roberts B. Public attitudes to science in South Africa. South African Journal of Science, 2013; 109(1/2), Art. #1200, pp.1-8.
[6] Andrew R. Binder, Michael A. Cacciatore, Dietram A. Scheufele, Bret R. Shaw and Elizabeth A. Corley. Measuring risk/benefit perceptions of emerging technologies and their potential impact on communication of public opinion toward science**.** *Public Understanding of Science*,2012, Volume: 21 issue: 7, pp. 830-847.
[7] Martin W Bauer. Survey research and the publicunderstanding of science, London London School of Economics and Political Sciences, 2008.
[8] Public Attitude to science 2008 Survey**.**Research Councils UK and the Department for Innovation, Universitiesand Skills, 2008.
[9] Survey of Public Attitudes Toward and Understanding ofScience & Technology in Japan National Institute of

Science and Technology Policy Ministry of Education, Culture, Sports, Science and Technology, 2002.
[10] Sarah Castell, Anne Charlton, Michael Clemence, Nick Pettigrew, Sarah Pope, Anna Quigley, JayeshNavin Shah and Tim Silman.Public Attitude to Science 2014.Economic&Social ResearchCouncil,2014.
[11] Pablo Kreimer, Hebe Vessuri, Leonardo Silvio Vaccarezza.The Public Perception of Science and Technology in a Periphery Society: A Critical Analysis from a Quantitative Perspective. J. Science, TechnologyandSociety, 2007,Volume: 12 issue: 1, pp. 141-163.
[12] Perception and Attitudes towards Science Xjenza - The Malta Council for Science & Technology, 2015.
[13] Science and the Public. A Review of Science Communication and Public Attitudes to Science in Britain.A Joint Report by the Office of Science and Technology and the Welcome Trust, 2000.
[14] EC.Public Perceptions of Science, Research and Innovation.2014.
[15] EC.Public opinion on future innovations, science and technology.2015.
[16] EC. Responsible research and innovation, science and technology.2013