3) lack of a clear forecast of the industry.

Given the above, we can conclude that in 2021 the Ukrainian IT-market will grow both in terms of the number of employees and the number of investments. And if the growth rate continues for several years, the export of Ukrainian IT-services may increase by 50-100%.

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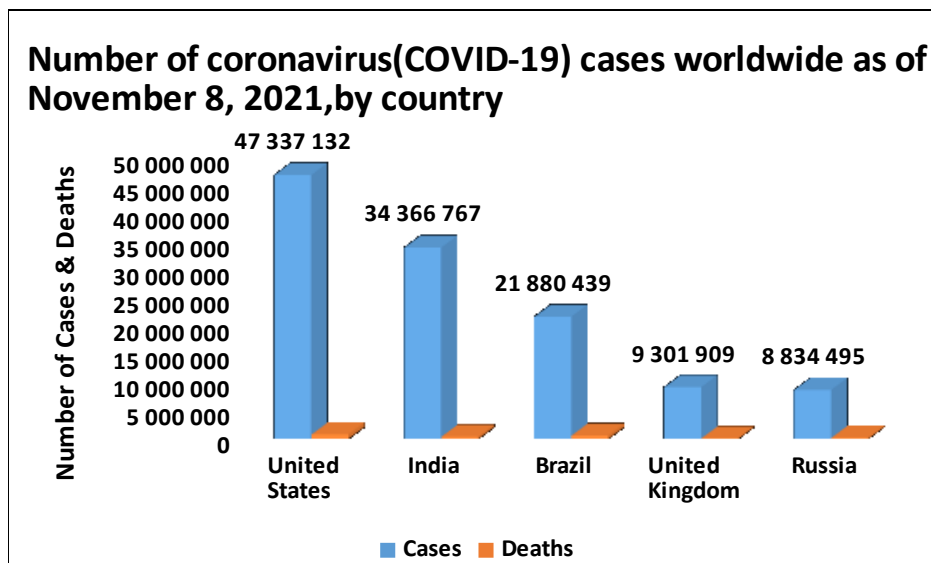# HOW COVID-19 PANDEMIC IS CHANGING THE WORLD: A STATISTICAL OUTLOOK

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The COVID-19 pandemic has affected all segments of the population. It presents an unprecedented challenge to public health, the global economy, and the functioning of the National Statistical Office (NSO). The economic and social disruption caused by the pandemic is catastrophic. Governments making decisions must have access to the best information and data available. This paper talks about the impact of the coronavirus pandemic on the functioning of the national statistical office, social and global economy. The world needs reliable data and statistics that are useful for decision-making throughout the different stages of the policy-making process. At a time when statistics are most needed, many statistical systems are lagging. It highlights the need to invest in data and analytics, sufficient resources, modernize operations, and upgrade infrastructure to provide flexibility.

Coronavirus disease (COVID-19) is an infectious disease caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) virus. Wuhan Municipal Health Commission, China, reported a cluster of cases of pneumonia in Wuhan, Hubei Province. A novel coronavirus was eventually identified[1]. The disease has since spread worldwide. The spread of the disease can be classified as endemic, epidemic, and pandemic. Endemic describes a disease that spreads at a constant level within a place or country without external inputs. It belongs to a particular people or country. An epidemic is a condition where a disease spreads rapidly to many people in a given population within a short period. An epidemic may be restricted to one location, like within a society, community, region, or country. A pandemic is a global epidemic of an infectious disease that spreads to more than one country, continent, or

worldwide, affecting a significant number of individuals. Recent examples of a pandemic are the Spanish flu, SARS and COVID-19. As per the worldometers.com website, 222 Countries and Territories around the world have reported COVID-19 cases. The top 3 countries are the United States, India, and Brazil till November 08, 2021.

Plot. Bar plot of COVID-19 cases and deaths by country
Source: https://www.worldometers.info

We are living through unprecedented times. COVID-19 has changed how we live, work, travel, communicate and interact with each other and the world. It has disrupted the social, economic, political, and financial structures of the world. It has challenged all countries across the globe. Lockdowns introduced by governments during the pandemic contributed to the disruption of international trade. It has impacted all sectors, industries, and aspects of our lives with devastating economic and financial losses. It has pushed many people into poverty and below poverty line. The world needs data and statistics to make better decisions during this difficult time.

II Impact of COVID-19 on Global Economy

The coronavirus pandemic has reached almost every country and territories in the world. It has brought economic activity to a near standstill as countries put lockdown to halt the spread of the virus. The COVID-19 global recession has been the deepest since the end of World War II. The global economy contracted by 3.5 per cent in 2020, according to the World Economic Outlook Report published by the IMF. It has disrupted the global economy and world trade, as production and consumption are scaled back worldwide. Millions of people around the world are at risk of falling into poverty. World Bank estimates that the pandemic could push about 49 million people into extreme poverty in 2020. A large number of the new poor will be concentrated in countries that have high poverty rates. Almost half of the projected new poor (23 million) will be in Sub-Saharan Africa and 16 million in South Asia.[2] Many people have lost their jobs or seen their income cut. According to International Monetary Fund (IMF), in the United States, 8.9 % population lost their work. The

IMF estimates that the global economy will shrink by 4.4% in 2020. It described the decline as the worst since the Great Depression of the 1930s. The airline industry has been badly hit, with airlines cutting and suspending flights.

Economic impact analysis of the International Civil Aviation Organization (ICAO) states that in April 2020, air traffic fell drastically to nearly zero with unprecedented contractions of over 90%. The tourism industry has been badly hit. According to United Nations Conference on Trade and Development (UNCTAD) global economy could lose over $4 trillion due to the coronavirus pandemic impact on tourism. Around the world, Micro, Small, and Medium Enterprises (MSMEs) in developing countries are the most affected sectors due to prolonged lockdown. Millions of enterprises face an existential threat. Hotels, restaurants, and cinemas experienced a complete shutdown for many months. Foreign Direct Investment (FDI) dropped in 2020. Remittances- the money those international migrants send to their home countries dropped as migration has slowed.

III Social Impact of COVID-19

Every aspect of our lives has been impacted. The COVID-19 outbreak affects all segments of the population, particularly people living in poverty situations, persons with disabilities, youth, older persons, and indigenous peoples. It has hit poor people badly who are more vulnerable. The poor live primarily in rural areas, and they have limited access to health services. The poor in urban areas live in congested settlements and tiny houses with low-quality services, which would increase their risk of being infected by the virus. The pandemic has affected educational systems worldwide. It led to the closures of schools, colleges, and universities. According to UNICEF, more than 1 billion children are at risk of falling behind due to closure of school and university for long time. The coronavirus pandemic has exposed the flawed health system worldwide. It has impacted the mental health of people around the globe. According to a survey by WHO, the COVID-19 pandemic has disrupted mental health services in 93% of countries worldwide while the demand for mental health has increased. Many countries have reported an increase in domestic violence. Older people are affected by the virus and need special attention. People with disabilities are at higher risk of becoming infected. Since the outbreak of coronavirus collecting data and statistics on migrants and migration related issues has become challenging. The implementation of censuses and surveys have been affected. It is causing decline in human development worldwide.

IV Impact of COVID-19 on Official Statistics

COVID-19 has severely impacted the statistics programs and practices of the National Statistical Office (NSO). The functioning of NSO has been heavily affected across the world. Many NSOs had to suspend face-to-face interviews, and staff were asked to work from home, often with limited access to the tools and technology. Surveys planned were halted or suspended. Data collection operations were significantly affected. Alternative data collection methods such as telephone or web are being used heavily to avoid physical contact with the respondent. The disruption in data collection will impact worldwide access to key economic indicators related to international trade, economic growth, and so on. It has hampered the ability of

national statistical systems to collect data, causing severe disruptions to censuses, household surveys, and others. Policymakers need data on the pandemic and its impact on public health, livelihoods, education, and the economy. It has disrupted labour force data collection throughout the world. There will be a need for new statistics. To get recent statistics, we need new data, new data sources, new services, new software, a new form of communication, and a new form of statistical education. According to the survey conducted by the World Bank and the United National Statistical Division (UNSD) in May 2020, 65% of NSO headquarters were partially or fully closed, 90% have staff working from home or remote, and 96% have stopped face-to-face data collection to stop the spread of the virus. Statistical operations have been hardest hit in low-middle-income countries. 90% of NSOs in low-middle-income countries struggle to meet international reporting requirements, as opposed to one in two NSOs in high-income countries. [3]

COVID-19 pandemic has shown the vulnerability of the national statistical systems around the world. The challenges faced by the statistical system today have not been seen in the past. It is essential to transform and modernize the national statistical system. In crisis time, there is more need for reliable data to be available on a timely basis so that governments can understand the health, economic, and social impacts of the pandemic and respond effectively. More accurate statistics are needed to better understand the impact of the pandemic and design appropriate responses. Countries and International Organizations across the world must cooperate and ensure the continuous flow of official statistics that can be used to make life-saving decisions on time.

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