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COVID 19 PANDEMIC AND DIGITAL ECONOMY - CHALLENGES AND OPPORTUNITIES

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ABSTRACT

Technologies are useful and necessary tools to help ensure that authorities continue to provide appropriate required services throughout the COVID-19 pandemic. As the virus continued to spread around the globe, almost all governments had brought forward restrictions in accordance with how the pandemic evolved. These restrictions affected the mobility of people, the way services were provided and the specific rules regarding social distancing. In this context, technology had a profound effect on the daily life of citizens and guaranteed them, among other things, access to services related to health, access to needed information in relation with the authorities, and what is very crucial, it provided, and continues to do so, the main tools for economic growth. However, the rapid expansion of the COVID-19 virus can force the competent authorities to take on-time decisions, involving, but not just, digital technologies. This, although effective in the short term, can lead to negative long-term impacts, particularly with regard to digital rights and local governance. In addition, throughout the post COVID-19 phase, digital technologies will be crucial and at the heart of ensuring a return to the daily life of citizens and communities in safe conditions, and a return to the provision of services. This paper will give an overview about the challenges that the world has faced and is still facing during this time.

Keywords: digital economy, COVID 19, computer devices, connections, communications.

- Natural and mathematical sciences

INTRODUCTION

The data-based digital economy is booming, global traffic in Internet Protocol (IP) has tripled between 2017 and 2022. However, the digital divide is widening, according to the UNCTAD Digital Economy Report of 2021.

According to the United Nations Conference on Trade and Development (UNCTAD), the Covid-19 pandemic has greatly increased Internet traffic, as many activities have had to be adapted to this new reality and established online.

According to the mentioned report Global Internet usage increased by 35% in 2020, which is an important increase compared to the 26% from the previous year.

On the other hand, the increased share of data flows is closely related to mobile networks. With the increase in the number of mobile devices and devices connected to the Internet, data traffic by mobile broadband should represent almost a third of the total volume of data in 2026, indicates the report.

UNCTAD reports, however, that the data-based digital economy is unfortunately characterized by major imbalances and major fractures.

As the digital economy grows, an additional data divide worsens the digital divide, according to the Director of the Technology and Logistics Division of UNCTAD, Shamika N. Sirimanne. It urges the establishment of a new international system for regulating data flows in order to redistribute the gains more equitably.

The UNCTAD report warns that, in this new configuration, developing countries risk becoming simple providers of raw data to various established global digital platforms, while they will still have to pay at the same time to gain access to digital intelligence obtained from their own data.

Only 20% of people in the least developed countries (LDCs) use the Internet, and when they do, it is generally at relatively low download speeds and at a proportionately high price, the report indicates.

Additionally, data shows that the average speed regarding mobile broadband is around three times greater in the majority of the developed countries compared to LDCs.

Also, if up to eight out of ten internet users shop online in many developed countries, less than one in ten does so in a large number of LDCs.

The use of international bandwidths is concentrated geographically along two main axes: North America - Europe and North America - China.

The largest digital platforms - Apple, Microsoft, Amazon, Alphabet (Google), Facebook (Meta), Tencent and Alibaba - are investing more and more throughout the global data value chain. They invest in data collection through user service platforms, in data transmission via submarine cables and satellites, in data storage (data centers) and in analysis, data processing and use, for example thanks to artificial intelligence (IA).

With the acceleration of digitization, the size, magnitude of the profits, market value and dominance of these platforms further strengthened during the pandemic.

Thanks to privileged access to data, network effects and economies of different scale and range, these platforms have become global digital companies with global reach ; financial power, colossal commercial and technological gains, who control a huge range of data about their users.

According to the report, the Amazon corporation has invested around $ 10 billion in satellite based broadband connectivity.

Amazon, Apple, Facebook (Meta), Google and Microsoft were the main buyers of artificial intelligence startups between 2016 and 2020. In the 4th quarter of 2020, large corporations such as Alibaba, Amazon, Google and Microsoft held around 67% of global revenues from various cloud services.

By 2022, the share of online advertising worldwide of five of the largest digital platforms (Alibaba, Amazon, Facebook (Meta), Google and Tencent) is expected to exceed 73%, compared to only 50% in 2015.

An innovative approach to global data governance is essential. As cross-border data flows become increasingly important in the digital economy, UNCTAD calls for an innovative approach to regulate them fairly internationally.

It seems that a new international system directed towards data flows regulations is of utmost importance if the gains are to be distributed in a more equitable way. For now, countries that are more able to extract and collect data are more privileged to appropriate the majority of their value.

According to Sirimanne (2021) a new international system for regulating data flows is essential if the resulting gains are to be redistributed more equitably.

According to her, the international community should pay more attention to the current bills that characterize the global digital economy, and which are found not only between countries, but also between states and businesses.

Torbjörn Fredriksson (2021), who heads the electronic commerce and digital economy branch of UNCTAD, reports that the shortage of adequate skills within governments may result in a lack of technical and analytical expertise in the process of developing legislative frameworks and regulations.

He added that this in turn could hamper the ability of governments to identify both the opportunities offered by digital technologies and the risks and dangers that might arise from them, as well as the means to deal with them.

The report also highlights the fact that less developed countries suffer from a brain drain to developed countries and are therefore less well represented in discussions to develop public policies at the global level, which contributes even more to the increase of inequalities in the world.

While all countries will need to allocate more resources to develop their capacities to create and understand the value of data at the national level, it is very likely that many developing countries will need international support to do so, due in particular to the limited level of their financial and technical resources.

FACING THE CRISIS

Against a backdrop of economic slowdown, the COVID-19 crisis has resulted in an explosion in electronic commerce and an acceleration of digital transformation.

Businesses and consumers increasingly are turning to digital, which suggests that more goods and services are sold and bought online. The share of electronic commerce in the global retail trade thus increased from 14% in 2019 to around 17% in 2020.

These results, among others, are presented in a new report entitled COVID-19 and E-commerce: A Global Review, published by UNCTAD and its partners in the eTrade for all initiative. It presents the deep regional and global industrial transformations that appeared throughout 2020.

During an event organized on the occasion of the publication of the report, the President of the United Nations General Assembly, Volkan Bozkir, stated that these trends regarding electronic commerce should continue during the recovery phase from COVID-19. He said that “We must identify the challenges and take action to support governments and citizens who continue to adopt new working methods".

According to Isabelle Durant, Acting Secretary-General of UNCTAD, companies and consumers who have been able to" go digital have helped to alleviate the economic slowdown caused by the pandemic but they have also accelerated a digital transition that will have lasting repercussions on our societies and our daily lives - repercussions for which not everyone is prepared.

WE ARE NOT EQUAL

The results show that electronic commerce has made significant progress in all regions, with consumers in emerging economies being the most likely to shop online.

The Latin American Mercado Libre online market it is reported to have sold twice as many products each day during the second quarter of 2020 compared to 2019 for the same period. Whereas, the African e-commerce platform which goes by the name Jumia has recorded a 50% increase in transactions based on data from the first half of 2020.

In China, on the other hand, online retail sales grew from 19.4% to 24.6% in the period throughout August of 2019 and August of 2020. Whereas, in Kazakhstan, online sales are reported to have increased between 5% in 2019 all the way to 9.4% in 2020. Whereas, Thailand is the country where the number of shopping applications usage has increased around 60% in the span of just one week of March 2020.

These trends for e-commerce in 2020 should continue during the recovery period, according to various reports.

It is worth mentioning that in several of the least developed countries, a lot of consumers and businesses continue to lack in opportunities offered by the ever increasing electronic commerce due to many persistent social and other kind of barriers.

These include the high cost of broadband services, excessive dependence on cash, lack of consumer confidence, poor digital skills of the population and limited attention paid by governments in electronic commerce.

"The countries that exploit the potential of electronic commerce will be in the best position for the goods and services they produce to reach world markets in a digital economy. On the other hand, those who do not are at risk of falling further behind, "said Shamika N. Sirimanne, Director of Technology and Logistics at UNCTAD.

According to the report, the pandemic has mainly benefited the major digital platforms of the world, which in itself constitutes a challenge.

Most of the solutions that people are using for electronic commerce, including tools such as teleworking and the so called dematerialized computing continue to be offered by a small number of companies, many of which are based in China or the United States.

The most modest players may be better established, but the digital giants are still overshadowing them in this market, which could strengthen their dominant role throughout the pandemic.

According to Torbjörn Fredriksson, head of the digital economy at UNCTAD, there is a real risk that the large digital divide that existed between many countries and within a single country will worsen following the pandemic," said,. This will result in even deeper inequalities that may jeopardize progress towards the achievement of the United Nations' proposed development goals.

HOW GOVERNMENTS RESPONDED

We should mention that most governments have focused their strategies on short-term actions regarding the pandemic, but some of them have also begun, to a greater or lesser degree, to address longer-term strategic demands too, especially with the economic recovery which is in sight. A number of governments coming from developing countries have proposed strategies to protect their businesses and the incomes of individuals.

For example, in Latin America, the government of Costa Rica has provided a platform for those businesses which are not connected, as well as developing a smartphone application coupled with an SMS service to all of which help facilitate the trade between producers in agricultural, meat and fish industry.

In Africa, on the other hand, Senegal carried out a campaign to inform, educate and make awareness through highlighting all the benefits that an electronic commerce can provide to all segments of its population.

In Asia, we should mention Indonesia which has launched a capacity development program to improve digitization and accelerate the digital switchover of micro, small and medium-sized enterprises.

According to the UNCTAD 2020 report the measures that should be taken by three types of partners to make e-commerce work for everyone. Governments must prioritize digital preparation at the national level in such a way that it will pave the way for more local based businesses to be able to become producers of the digital economy, not just consumers.

Based on the report, establishing an appropriate e-commerce ecosystem will require additional changes regarding public policies and previous established business practices with the aim to improve the digital business infrastructure through facilitating digital payments and by establishing legal and regulatory frameworks for better online transactions with better security. Policies should not be developed in a vacuum, at least according to Sirimanne.

To capture the value of digital commerce, digital entrepreneurship must become a central axis.

This requires accelerating the digitization of small businesses and paying more attention to digital entrepreneurship.

Countries also need increased capacity to capture and exploit data, and stronger regulatory frameworks to create and take advantage of the digital economy.

At long last, the worldwide community should track down new, intense and insightful ways of working with country leaders and the private area to use these opportunities for its benefit.

The digital difference between countries, which was obvious even before COVID-19, is a true challenge that should be met through the means of collective efforts and especially through international support. E-commerce provides a huge potential for all.

To support work within the United Nations on the subject, Mr. Bozkir announced one high-level thematic debate on digital cooperation and connectivity on April 27, 2021.

This debate served as a platform for high-level declarations of political intention and support, and for open exchanges between United Nations entities, technological leaders and other stakeholders. It’s objective was to mobilize the international community to provide specific strategies to strengthen existing initiatives and partnerships, to support new ones to accelerate implementation.

Better discourse and better coordinated effort are expected to distinguish new ways for the advanced economy. One method for doing this is the eTrade for all issues, driven by UNCTAD and presently subsidized by the Netherlands, Germany and Estonia.

Over the past years, this initiative was ment to serve as a global assistance service for developing countries to fill the information and resources gap on electronic commerce and to catalyze partners.

Since the start of the pandemic, more than 30 partners of the eTrade for all initiative have worked together to raise awareness of the opportunities and risks of electronic commerce that emerged during the crisis.

They likewise recognized the means by which organizations from developing and least developed nations could move beyond these challenges.

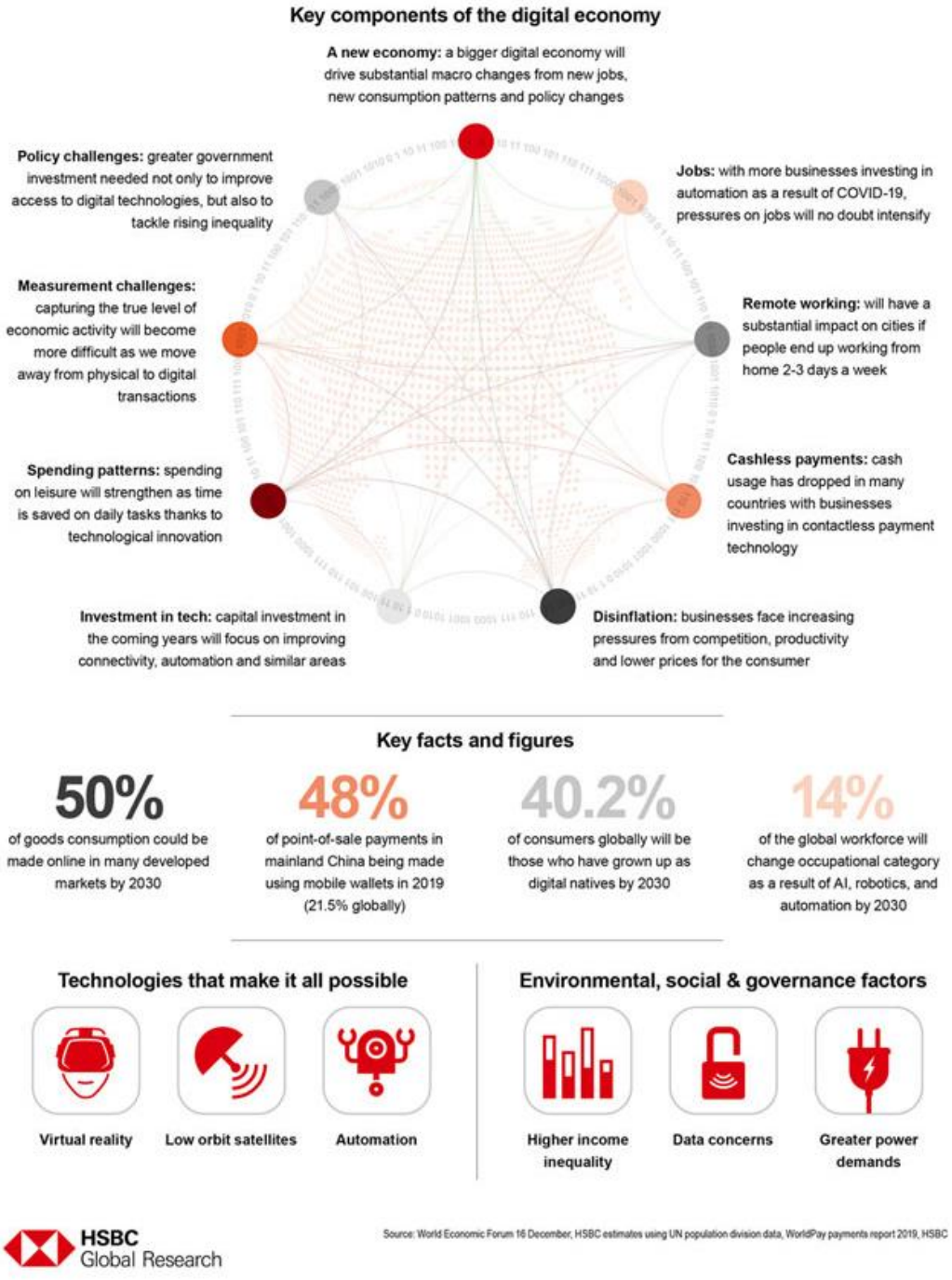

Fig. 1 Digital Economy Overview[1]

CONCLUSION

[1]https://www.gbm.hsbc.com/insights/global-research/the-booming-digital-economy, accessed on February 27, 2022

Improving internet access and digital skills has helped many countries cope with the health and economic crisis caused by the COVID-19 pandemic. At the same time, the crisis has highlighted the need to go further in the digital transition and to fill digital fractures, otherwise a number of individuals and businesses may find it more difficult than others in the post-COVID world.

While some internet service providers have reported a 60% increase in traffic since the start of the pandemic - whole fields of private and professional life have switched to the cyber environment - the new edition of Digital economy outlook of the OECD (Organisation for EconomicCo-operation and Development) highlights the disparities in access to a fast and reliable internet between and within countries. For example, the the share of fiber in fixed broadband subscriptions reaches 82% in Korea and 79% in Japan, but is less than 5% in Germany, Austria, Belgium, Greece, Israel and the United Kingdom, and very high speed is often rare in rural areas. Some countries have about twice as many mobile broadband internet subscriptions per capita and three times as many fixed broadband subscriptions compared to others.

Digital technologies have helped our economies and societies to avoid a complete halt during the COVID-19 crisis, and allowed us to know more about the virus, accelerate the search for a vaccine and follow the evolution of the pandemic. But the crisis has also increased our dependence on digital technologies and exposed the digital disparities between and within countries. We are reaching a turning point in digital transformation, and the face of our economies and our post-COVID societies will depend on the progress we achieve and our ability to reduce the divides.

It is worth mentioning that digital transformation was already in a fast pace even before the COVID-19 crisis, where an increasing number of countries developed digital appropriate strategies that were at the core of their national action programs. The surge in demand for bandwidth-intensive communication services for electronic commerce, telework, online social activities and the strengthening of cross-border collaboration between governments and academics should give it additional impetus. Not to mention that the current dependence on digital solutions has added urgency to privacy and security concerns, creating an environment conducive to cybercriminals.

The average use of mobile subscription data in many countries had already quadrupled over four years until June 2019, and the prices of high-use mobile broadband subscriptions fell 59% over the 2013-19 period, according to the study, which is based on data from OECD Broadband Portal.

The OECD economies had 113 mobile broadband internet subscriptions per 100 population in June 2019, compared to 32 ten years earlier, while non-member countries had 60 such subscriptions per 100 population. There are also 32 fixed broadband subscriptions per 100 inhabitants in OECD countries (more than triple the levels observed in non-member countries, whose average is 9 per 100 inhabitants); fiber represents 27% of subscriptions. Differences remain between rural and urban households in terms of quality of connection to fixed broadband.

In 2019, before the pandemic, only a quarter of OECD companies employing more than 10 employees engaged in electronic commerce; a third of the companies used infonuagic services and more than half were present on social media. In 2019, 58% of individuals used e-government services, compared to 43% in 2010.

The share of adults using the Internet exceeds 95% in some OECD countries, while it is less than 70% in others. Examining the differences in internet access and use by age or level of income reveals inequalities in terms of access to information and public services, which are essential in the event of a pandemic. If in the future the jobs, education, health, even social interactions, and economic growth for that matter, come to depend on digital technologies, failure to guarantee widespread access to digital services will greatly impact those countries which will not be able to establish such technologies.

State run administrations can speed up the arrangement of broadband by advancing private venture and contest, empowering the sharing of foundation and setting the minimum levels of inclusion of rural regions. To meet the current growth in demand for connectivity, experts recommend a number of measures, in particular: temporarily release additional frequencies or approve commercial transactions allowing the operation of unused frequency bands, strengthen interconnection capacities between networks, or find solutions to encourage broadband service providers to deploy fiber further in networks.

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