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Foreign Experience Of Digital Platforms Of The Electronic Market Of Agricultural Products

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Abstract:

This article is dedicated to foreign experience of digital platforms of the electronic market of agricultural products. This article examines the role of the electronic agricultural platform in the countries of the world.

Keywords: *Digital, platforms, experience, trend, agricultural.*

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I. INTRODUCTION

Despite the well-known key trends that the future of food and agriculture are facing: such as growing food demand, constraints in natural resources and uncertainties for agricultural productivity (OECD, 2015a), the projected increase in world population from 7.6 billion in 2018 to well over 9.8 billion in 2050 has received a great deal of attention as an influence on world demand for food (UN DESA, 2017). In addition to this, a rapid rate of urbanization is expected in the coming years, with approximately 66 percent of the world's population expected to live in urban areas by 2050, compared with 54 percent in 2014. Therefore, 40 percent of water demand in 2030 is unlikely to be met, and more than 20 percent of arable land is already degraded (Bai et al., 2008). Annual cereal production will need to increase by 3 billion tones by 2050 (Alexandrite & Bruinsma, 2012), while meat demand in LDCs will increase by a further 80 percent by 2030 and by over 200 percent by 2050. Although today we have food systems that produce enough food to feed the world, with more than 570 million smallholder farms worldwide (Lowder et al., 2016) and agriculture and food production that accounts for 28 percent of the entire global workforce (ILOSTAT, 2019), 821 million people still suffer from hunger.1 Even though FAO (2017, p. 5) believes that the rising demand for food can be met, it is unclear to what extent this can be achieved in a sustainable and inclusive manner, thus posing the question "How to feed 9 billion people by 2050?". To answer this, we need urgent agrifood system transformation at extraordinary speed and scale-up.

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II. THE DIGITAL AGRICULTURE

Agriculture has undergone a series of revolutions that have driven efficiency, yield and profitability to levels previously unattainable. The first agricultural revolution (ca. 10,000 BC) enabled humanity to settle, leading to formation of the world's first societies and civilization. Further revolutions introduced mechanization (between 1900 and 1930), the development of new, more resistant crop varieties and the use of agrochemicals ("The Green Revolution" of the 1960s), complemented (from 1990 to 2005) by the rise of genetic modification technologies. The latest, so called "digital agricultural revolution" could help humanity to survive and thrive long into the future. Digital agriculture offers new opportunities through the ubiquitous availability of highly interconnected and dataintensive computational technologies as part of Industry 4.0 (Schwab, 2016). The rise of digital agriculture could be the most transformative and disruptive of all the industries, because digital agriculture not only will change how farmers farm their farms, but also will transform fundamentally every part of the agrifood value chain. Digital agriculture will affect the behavior of farmers, and also affect the way that input providers, processing and retail companies market, price and sell their products. It can be applied to all aspects of agrifood systems and reflects a change in generalized management of resources towards highly optimized, individualized, intelligent and anticipatory management, in real time, hyperconnected and driven by data. For example, rather than treating all fields, crops and value chains uniformly, each could receive their own highly optimized management prescriptions and animals could be monitored and managed individually. Value chains could have traceability and coordination at the lowest level of granularity. The desired results of digital agriculture are systems of higher productivity, which are safe, anticipatory and adapted to the consequences of climate change, to offer greater food security, profitability and sustainability. Market forecasts suggest that digital technologies will transform agriculture and the food sector over the next decade. These technologies will have their own place and impact within the agrifood value chain. Their integration within the agrifood value chain will depend on complexity and stage of maturity of the particular part of the chain. Therefore, in this report we classified digital technologies according to the following structure, based on the complexity and stage of penetration of these technologies in the agrifood sector.

a) mobile devices and social media;

b) precision agriculture and remote sensing technologies (IoT, GNSS, RTK, VRT, PLF, UAV and satellite imagery);

c) Big Data, cloud, analytics and Cybersecurity;

d) integration and coordination (blockchain, ERP, financing and insurance systems);

e) intelligent systems (Deep Learning, Machine Learning and Artificial Intelligence and robotics and autonomous systems).

EXISTING DIGITAL AGRICULTURE STRATEGIES

The need for national e-agriculture strategies has been acknowledged by many stakeholders for some time; however, many countries have not yet adopted a national strategy for use of ICTs in the agricultural sector. In most countries there are many elements to e-agriculture, but all are part of the existing ICT strategy or embedded as small projects within e-government strategies (mostly OECD countries). Fully developed national strategies on digital agriculture are rare, but the existence of a comprehensive national strategy can prevent e-agriculture projects from being implemented in isolation and develop efficiency gains from intrasector and cross-

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sector synergies (FAO, 2018). This is the case in some countries where FAO piloted and guided the implementation of e-agriculture strategies, such as Bhutan and Sri Lanka. The Bhutanese e-agriculture strategy (E-RNR Master plan) was formulated based on the Renewal Natural Resources (RNR) 5-year plan (20132018), implementation of which was led by the Ministry of Agriculture and Forests (MoAF). This master plan aimed at harnessing the ICT potential of Bhutan to achieve its RNR goals and further strengthen the role of ICTs in accelerating the growth of the RNR sector in a sustainable and equitable manner. The vision and desired outcomes were formulated based on the Economic Development Policy (EDP 2010),38 Telecommunications and Broadband Policy 201439 and e-Government master plan adopted in 2013.

Table Countries with digital strategies affecting the agrifood sector

Country	Strategy	Phase	Impact on agrifood
Mexico	National Digital Strategy	Implementation	Partly (education and tax)
Columbia	Online Government Strategy	Implementation	Partly (data, ICT services)
Brazil	Digital Governance Strategy	Implementation 2016–2019	Partly
Bulgaria	Strategy for Digitization of Agriculture	Drafted	High
Hungary[42]	Digital Agriculture Strategy	Drafted	High
Australia[43] (Victoria)	Digital Agriculture Strategy	Implementation	High
Greece	Digital transformation of Greek agriculture	Implementation	High
United Kingdom[44]	Agricultural technologies (agritech) strategy	Implementation	High
Ireland[45]	National Digital Strategy	Under Elaboration	Moderate
Spain	Agenda for the Digitization of the agrifood and forestry sectors and rural areas	Planned implementation 2019	High

III. DIGITAL TECHNOLOGIES IN AGRICULTURE AND RURAL AREAS

Globally, the youth literacy rate increased from 83 percent to 91.4 percent over two decades, while the number of illiterate youth declined from 170 million to 115 million. In 2015, the youth literacy rate stood above 95 percent in 101 out of 159 countries where data are available (UNESCO, 2017). And it is particularly promising that this intergenerational change is happening especially quickly in the least educated regions of the world. Youth literacy rates remain low in several countries, most in sub-Saharan Africa, at less than 50 percent because of low access to schooling, early school leaving or a poor quality of education. However, even when universal primary education is within reach, some countries, such as Malawi and Zambia, show low youth literacy rates (UNESCO, 2017). Bhutan and Nepal in southern Asia, and Algeria, Eritrea and Togo in subSaharan Africa, had the biggest increases in youth literacy over the past 50 years. The biggest improvements in youth literacy are observed in Algeria and Bhutan. They went from very low youth literacy 50 years ago to a significantly higher share of youth with basic literacy skills (94 percent and 87 percent, respectively) in 2016, mainly because of

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increased access to primary schooling (UIS, 2017). The youth literacy rate increased the most in South and West Asia (from 85.6 percent in 2012 to 88.6 percent in 2016) and sub-Saharan Africa (from 73 percent to 75.5 percent). To a lesser extent, progress was also observed in all other regions (UIS, 2017). Despite 60 percent of the countries and areas for which data are available having eradicated or almost eradicated illiteracy among youth, regional and gender disparities persist. Literacy is lowest in the rural areas of LDCs and higher among males than females. In sub-Saharan Africa the gap is largest, only 54 percent of youth in rural areas are literate, whereas in urban areas this number is 87 percent. For example, in Niger, only 15 percent of youth in rural areas can read a simple sentence. In Burkina Faso and Chad this number is 19 percent, and somewhat better in Guinea and Cote d'Ivoire at 35 percent. In recent decades in Latin America and the Caribbean, the gap has been rapidly decreasing. In Bolivia it is only 2 percent, while in countries such Barbados, Columbia, Uruguay and St. Lucia literacy between urban and rural youth is equal. In this region Haiti has the highest illiteracy among the rural youth population at 74 percent (UNESCO, 2017). Indeed, the gender gap is correlated with the regional disparity. Figures 2-18 and 2-19 clearly show that those regions and LDCs with higher gaps in youth literacy between urban and rural areas also show higher gender gaps between youth populations. In sub-Saharan Africa the gap is 18 percentage points, whereas in LDCs in general it is 23 percentage points. In East and Southeast Asia, male youth are 14 percent less literate than the females. In Latin America and Caribbean this gap is just 2 percent, while in Europe and North America the gap is already closed and gender literacy equality is achieved among the youth population. The largest inequality gap is seen in Afghanistan at 50 percentage points, followed by Guinea 45 percentage points, based on latest available data from UNESCO (2019).

IV. ABBREVIATIONS

AI Artificial Intelligence
CAGR Compound Annual Growth Rate
CIS Commonwealth Independent States
DL Deep Learning
DLT Distributed Ledger Technology
ERP Enterprise Resource Planning
EU-28 European Union 28 countries
FAQs Frequently Asked Questions
FVC Food Value Chain
GHG Green House Gasses
GNI Gross National Income
GNSS Global Navigation Satellite System
GPS Global Positioning System
GVC Global Value Chain
ICT Information and Communication Technologies
IoT Internet of Things
IPPC International Plant Protection Convention
ISPs Internet Service Providers
ISCED International Standard Classification of Education
LDCs Least Developed Countries
LTE Long Term Evolution Mbps Megabits per second
MENA Middle East and North Africa
ML Machine Learning
MNOs Mobile Network Operators
MOOC Massive Online Open Course
OECD Organisation for Economic Co-operation and Development
PA Precision Agriculture
PLF Precision Livestock Farming
PPP Purchasing Power Parity
RFID Radio-frequency Identification
RTK Real-time kinematic
SEO Search Engine Optimization
SDGs Sustainable Development Goals
SME Small and Medium Enterprise
VC Venture Capital
VRNA Variable Rate Nitrogen Application
VoIP Voice over Internet Protocol
VRPA Variable Rate Pesticide Application

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VRI Variable Rate Irrigation
VRS Variable Rate Seeding
VRT Variable Rate Technologies

V. CONCLUSION

Governments can unlock assets first by thinking of digital networks not as expenditures but as enablers, and, second, by recognizing the importance of rural communities in developing and testing new solutions, driving innovation and economic development, and attracting foreign investment. Compared with just a decade ago, governments have made significant progress in expanding ICT access. Some developed countries are reaching near universal access through fixed and mobile connections. Developing countries, meanwhile, have some way to go to catch up on access rates, but are gaining ground by expanding mobile services. Currently, there are trends in deploying e-services, especially in health, education, the environment and decent employment, while the reach to the most vulnerable is expanding.

VI. REFERENCES

1. 2017a. Business Use of Information Technology, 2015–16, cat. no. 8129.0, Australian Bureau of Statistics, July.
2. Summary of IT Use and Innovation in Australian Business, 2016–17, cat. no. 8166.001,
3. Australian Bureau of Statistics, June. Acemoglu, D., Johnson, S., Robinson, J.A. & Thaicharoen, Y. 2003.
4. Institutional causes, macroeconomic symptoms. Journal of Monetary Economics, 50(1): 49–123.
5. ICT in Education in Central and West Asia. Manila: Asian Development Bank. ADB. 2018. Internet Plus Agriculture: A New Engine for Rural Economic Growth in the People's Republic of China. Manila: Asian Development Bank.
6. AgFunder. 2017. AgFunder Agri Food Tech: Investing report 2017. San Francisco: AgFunder.
7. AgFunder. 2018. AgFunder Agri Food Tech: Investing report 2018. San Francisco: AgFunder.
8. AGRA. 2017. Africa Agriculture Status Report: The Business of Smallholder Agriculture in Sub-Saharan Africa (Issue 5). Nairobi: Alliance for a Green Revolution in Africa. Aker,
9. J. 2011. Dial "A" for Agriculture: Using ICTs for agricultural extension in developing countries. Agricultural Economics, 42(6): 31–47. Aker, J. & Mbiti,
    I. 2010. Mobile-phones and economic development in Africa. Journal of Economic Perspectives 24(3): 207–232. Alexandratos, N. & Bruinsma, J. 2012.
10. World agriculture towards 2030/2050: the 2012 revision. ESA Working Paper No. 12–03. Rome, FAO. Alliance for Affordable Internet. 2018.
11. Affordability Report 2018. Washington DC: World Wide Web Foundation. Andres, D. & Woodard, J. 2013.
12. Social Media Handbook for Agricultural Development Practitioners. USAID and FHI 360. App Annie. 2019. The State of Mobile 2019.
13. San Francisco: App Annie. Asongu, S. 2015. The impact of mobile phone penetration on African inequality. International Journal of Social Economics 42(8): 706–716
14. Ilxamova Yo., Jumaniyazova M., Azizova M., Dgamalova G. E-commerce – in the economy of the

July-August 2020
ISSN:0193-4120 Page No. 3866 - 3871

world and Uzbekistan. International Journal of Advanced Science and Technology. 2019.11.14 49-54pp.

15. Джуманиязова М.Ю. Технология использования цифровых платформ в управление сельского хозяйства Узбекистана. The International Conference Proceedings on “Invesrments and entrepreneurship: challenges and prospects”. May 7, 2019.
16. Р.Х.Аюпов, Джуманиязова М.Ю. Цифровая трансформация в сельском хозяйстве Республики Узбекистан. Международный журнал гуманитарных и естественных наук» 2019 № 5, стр.87-91 . Электронный ресурс [https://cyberleninka.ru/article/n/tsifrovaya-transformatsiya-v-selskom-hozyaystve-respubliki-uzbekistan].
17. http://www.testmagzine.biz/00testmagzine/index.php/testmagzine/article/view/213 E-Commerce - In the Economy of the World and Uzbekistan Ilxamova Yodgorahon Saidaxmedovna , Jumaniyazova Muqaddas Yuldashevna , Azizova Manzura Ibragimovna , Djamalova Gulnoz Sadriddinovna
18. Джуманиязова М.Ю. Перспективы развития электронной коммерции в Узбекистане. Экономика и бизнес. Экономика и бизнес. Теория и практика, 2019, № 6, стр.63-66. [ЭЛЕКТРОННЫЙ РЕСУРС] https://cyberleninka.ru/article/n/perspektivy-razvitiya-elektronnoy-kommertsii-v-uzbekistane

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