CYBERNETICS IN FUNCTION OF AMBITIOUS FUTURE OF AGRICULTURE

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ARTICLE INFO

Original Article

Received: *25 February 2020*

Accepted: *06 March 2020*

doi:10.5937/ekoPolj2001069T

UDC 007:338.43

Keywords:

cybernetics, digitalization, accounting, agriculture, robotization.

JEL*: Q18,M41*

ABSTRACT

Cybernetics deals with basic laws of management, managing systems and systems that are being managed. It is about organization complex of different elements and mutual influences bonded in a system. That bond functions based on feedback, companies management evaluates information that are causing new commands to emerge which can correct work in accordance with delegated task. By mobilizing large number of scientific disciplines and ways, cybernetic has become a science of mutual regularity of management. Mathematical logic and theory of algorithms (base of digitalization) have benefited from cybernetics. Theory of recognition occurs. AI and isomorphism have happened that are characterized by equality of forms and it doesn't bypass agriculture, which is manifested through: ground analysis, choice of planting material, prescription for treatment and processing procedures, storage, transport and distribution. Robotization, IT, AI and digitalization make up symbiosis of action for achieving ambitious goals of agriculture.

Introduction

Everything is a system. Starting from stars all the way to atoms, and further, exists if we admit its existence. Natural systems have come to be, grown out in some spontaneous way, and social organizations were constructed. This understanding is expressed in accordance with an enterprise that is seen as efficient and a purposeful creation, whose shaping and lead is solely based in purposeful rational, and goal oriented action. Small and medium enterprises are a result of rational behavior of decision makers. Can evolution be fast forwarded? Difficult. Is it, however, possible to fast forward social and economic processes? The answer is yes, but with logistic approach. Science is growing by the law of exponential growth. Science is growing similarly as population,

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and population is growing proportionally to latest generation. Science grows in proportion to mass of knowledge that was achieved and left by the last generation (De Solla Price, 1963). Exponential growth cannot go beyond because it would achieve absurd measurements, which in real world would not allow its implementation, and every system that becomes absurd, necessarily falls apart. That is why, after period of exponential growth, comes to transition in logistic (mechanism of break and balance), and after certain period we again have exponential, and logistic growth in continuity of occurrence and mutability. It is similar with differentiation and integration of science. Differentiation represents movement of science from real to abstract, while integration represents elevation from abstract toward specific in thoughts of science as a whole (Tomin, 1974). Because of the fact that topic of agriculture includes IT, robotics, digitalization, evolution, where all their missions are, through adaptation, pointed on results, it is important to explain their dependencies. Need for connection abides that integration of science in one organic whole becomes dialectic process. It becomes wider and deeper. It has come to scientific fields that are connecting sequences of scientific disciplines. Integration of knowledge in these cases takes big scales that make primary disciplines closer to the case where they are losing their identity in new integrated science.

Cybernetics in process of cybernization and digitalization

Thanks to processes of integration of knowledge in research of reality, it has come to occurrence of cybernetics. What does digitalization and result oriented process' contain, in comparison to creation and growth of value for different interest groups that have consolidated result? Where do science and technology lead us? Are both of them heading for next day and are not turning back. Who mastered them and adapted to them will last, and who did not will disappear. If some achievement, regardless of thinking characteristic of innovative achievement isn't realized, it will mean that it was not worth it.

Fundamental categories of natural sciences: space, time, matter, movement, causality, is a result of Newton's parsing of nature into different fields, based on conceptual characteristics. Newton, basically parsed unique matter in movement in matter deprived of self movement to a movement whose source is the "force", which acts from the outside on matter. We have come to globalization based on alignment with law of movement of matter, which we observe as "expression of force and power". That force and that power are demonstrated by robotics and IT and digitalization. All of these occurrences are making us be more forthcoming. Ways for the future are requesting changes in economic and social ambient. New working culture is needed and new dynamic of cultural changes, that come as milestone of renewing strategy, reconstruction strategy, modernization strategy or strategy for evolution of new age. Help for adequate reaction

can be found in modification of Newton's laws on cultural changes[2]. Starting with basic Newton's laws, we will make small vocabulary modifications without bypassing intuitions in order to achieve process of adaptation toward phenomenon of cultural change in organizations (Davidson, 1995).

First law: behavior of an organization will not change unless and external force makes action on it (technical progress, competition).

Rare are organizations that are facing need for making a significant inner change without any significant influence from external forces that are acting from the environment that refer to it. If success of an organization can be seen as a value of outputs placement in function of time, than characteristics and quality of output are not good. Reasons for their acceptance and active feedback are found in environment. Under the influence of main categories of real and potential customers, inner reactions of enterprises on challenges from the outside are achieved.

Second law: amount of changes will be directly proportional to amount of effort that is being input.

"Amount of effort" asks a question about efficiency of different types of efforts and clearly points out that main change of strategy requires main changes in sources of obligations, this procedure is not automatically followed with requests for behavior changes.

Third law: resistance of organization for change will be the same value but different direction from the amount of tries that have been put in that change.

As Davidson M. Says in his book "The Transformation of Management", this law keeps changer awake at night. The more the organization is homogenous, historically successful and natural in its essence, the less "sleep" will changers expect. The stronger the culture, the stronger the thrust. If it cannot find a way to channel outside resistance, result is a pat position. If changers are in minority and represent the only source of external force (1st law), their chances for making important decisions are small.

Biggest aspect of culture in total culture of mankind manifests in cultural work that has productivity as side effect (Todosijević, 2010). In Serbian economy, effects of production work are very low, because for one hour of work we pay much more than highly developed countries. Just like in many European countries, propulsive sectors such as tourism, agriculture, IT, represent a potential development opportunities (Jovanović & Ilić, 2017).

2 Newton's laws:
1. An object will stay in place or will keep moving on a straight line path with constant speed until a different force makes action on it.
2. Change of speed of movement of an object is directly proportional to the force that is acting on it.
3. Action and reaction, by which two objects are acting on one another, is always equal and opposite by direction of action.

With growth of cultural levels and expressions of effects of production work competitive position of an enterprise will grow alongside economy as a whole. Withholding high level of success is a manifestation of competitive healthy position of an enterprise.

We need to point out a stand of closing natural, technical and social sciences, where natural and technical sciences are an answer for problems dictated by evolution of society. Research has shown high correlation between divergent thinking and creative abilities.

Informatics society

It is important to pay attention to two aspects of information: as stimulating factor and as mobilizing forces. There are process of information exchange in front of us for planned development of society, whose actions must be subjected to management and control. It is on managing duties to define who and when will achieve these activities. Idea of globalization does not confirm with any significant and timely experimental conception of historical development. Does this idea, in the essence, throw away uniqueness of process of development of every human activity or specialty of civilizations? We think that pointers are always toward specialties regardless of many.

It is obvious that in the essence of the management process in modern conditions must be a developed, new and strong education system, capable of gathering, processing, selecting and distributing large amount of structured information.

There is no production of new knowledge on internet, but presentation of current, is why network has several times enlarged possibility of achieving communications. Internet - it is at the same time, mean and environment of virtualization of society, due to professions of many people and their relationships with one another are changing reality. This change goes in all aspects of life (Čogovadze, academic, deputy president of executive advisory, UNESCO). If we understand intellectual production as creation of new information from known information, then convergent thinking can relate to production of new information that is maximally determined with existing and known information. Convergent thinking, which makes up base of creativity, represents substitution of intellectual research effort in terms of seeking for different answers, from which, not one is determined in advance. Associative theory looks at experience and repetition for main elements of creative and innovative approach. Moment of choice (decision) comes as second most important element. Treasure of information (prior experiences and achievements) in evolutionary sense for both biological and technical systems promotes analogy. Based on methods of sounding mistakes, with new ideas we can associate on old problems. “Based on associative theory, creative thinking represents result of establishing connections and depends of amount of associations that can be found in scientists mind” (Osborn, 1959). Based on dependency between number of original ideas, we can point out that the greater the number of ideas, greater the probability of occurrence of original valuable ideas.

We will look at agriculture as a cybernetic system that is based on union of elements that are forming a degree of connection of elements in the system and the system with

surrounding (Lerner, 1975). Management of development comes from information about choice of action of management, and managing actions alone are formed based on information that are found in "commands" of management. If production of information relies on research, it stems that management is always connected with using research. Exchange of information between systems and surrounding, as well as inside of a system, is achieved with help of connections of different types through which information are flowing (Lerner, 1975). Network comes as the main characteristic of digitalization.

Special place in function of agriculture as a cybernetic system has a system of characteristic feedbacks, through which information about managing results are brought into the system. Thanks to function of feedbacks, agriculture as a cybernetic system is capable of coming out of projected boundaries of its action and influences that are pre set by managing decision. That is where large potential of cybernetic system for development reaction can be found. By accepting cybernetization, we are in reality going toward informatization, robotization, and digitalization because we are admitting and confirming existence of cybernetics, capable to answer, through mobilization of factors in favor of business, on all challenges from the future. Theory of regulation, theory of recognition and theory of systems have been present for a very long time and eventual ignorance of them cannot serve as an excuse. Need for enlargement and implementation of achieved from problematic imposes. It is about need of new way of reacting on components that are occurring and coming from the environment.

If, as a general goal of an organization we set permanent survival, only then can materialistic explanation come into fact of sustaining organization through constant absorption of information from outside world, about occurrences that are happening and process' that are ongoing in organization itself. To remind readers that cybernetics study managing systems in their movement and development and are characterized in relativity of position of action.

Under the influence of different actions, agriculture has ability to change in the movement and "production" of different states. That gives it ability to position in space (ability of selection) which depends from quality of management. Tie of agriculture as cybernetic system with environment of its action, can be shown in matter of quantitative characteristics independent from qualitative nature of specific ties. Agricultural field is managing entities with biological transformation or by collecting biological means for sales or processing in agricultural products or for creation of additional biological means (international accounting standard 41).

Accounting information system, as a sub system of integral system of informing an enterprise, not only correlated but determined to other sub systems, of integral information systems, with which, in a whole, represents a compatible system of informing. Other sub systems of business information system are made of: financial, procurement, market research, marketing, planning, constructive and technological, operative-technical, controlling, commercial, legal etc. With intention to generate complex information, relevant for making optimal, business decisions, it is needed

to integrate all of prior mentioned sub systems in a uniformed system of informing (Vidaković & Parnicki, 2017).

Agriculture as an economic branch and complex organizational system and sub system possesses potential possibilities for managing complex and complete organizational structure by establishing purpose for its nomenclature, essential parts and organizational systems far from thermodynamic balance. Digitalization will bring us closer to this phenomenon.

Accounting possesses all symptomatic features of an information system such as: goal, function, structure, behavior norm, input, output, result, documenting, whole, methodology, benefits for processing with modern means for data processing, as well as value (Vidaković & Parnicki, 2017). Accounting information system makes significant number of information sub systems, projected to offer operative information about specific activities of an enterprise. Projected sub systems of accounting information system are, on certain levels, connected into a unified accounting information system.

Accounting today is, and we are sure it will be tomorrow as well, a "bibliography" of an enterprise. Transformation will happen. We are witnesses that traditional accounting is becoming interactive accounting. With mobile glasses for data storage, facebook friends can meet in virtual reality anywhere in the world - thanks to 360° view. We are witnesses of work environment revolution thanks to digital transformation (Todosijević & Todosijević Lazović, 2018).

For a technician, accountant, physiologist, economist, agronomist, role of information and techniques of measurement and distribution represent a separate discipline. Starting with message theory, method of measuring quantity of information starts with a unit of information taken from a single decision (removing uncertainty) between two equally probable alternative outcomes. We come to an answer, that measurement of amount of information is defined as an algorithm of number of possible states of observed system. As a negative value, symmetric, with information, has been brought, one of the basic categories of statistical mechanics - entropy, measurement for disorganized is a system in the sense of amount of information in a system as a measure of its degree of organization. Information occurs as substitution for management and as a base for decision making, and making a decision means managing (Todosijević, 2010). By overcoming sharp systematic obstacles between structures, it came to development of basic theory of management and communication.

In this paper we rely on applied cybernetics, which includes questions of application of cybernetic conceptions in different aspects of human work, including agriculture (Parin & Bajevski, 1967). Development and changes of its state are basic characteristics of cybernetic systems.

Robotization and digitalization as cybernetic portfolio

In evolutionary sense, common research and development focuses on activity profile applications, production, services and virtual systems in the fields of autonomous

controlling processes, monitoring state and predictive technical and technological sustainability and improvement. Other focus points are IoT platforms (Internet of Things), digital infrastructures and standards for connecting elements of system structure with systems of new higher level or with peripheral devices. Besides that, new applications for data analysis must be developed mutually in order to generate valuable information from data and make possible for the system as a whole to develop. With technology based changes and innovation, need for new management technology of complex dynamic systems imposes.

In the world of growing uncertainty, change is a direction without a clear intention (Davidson, 1995). As nomadic tribes, modern companies, within their possibilities, define their development for competitive level, while in external environment the move from market to market in search for position to sustain their abilities. Winners are those who have knowledge and energy to develop special abilities and values for specific markets. Measure of business success in certain point is shown in financial means. Digitalization of economic and social sector with use of modern technologies in business process' opens a question of informatics and cybernetic security of digitalized structure and achieves a significant development in that direction. "Cognitive cybernetics are a new scientific discipline that based on cognitive founding and cognition as human mental charge , connects cybernetic intellection of all as a system (technical, social, natural etc.) with new intelligent technologies and to cognize of interactions show captologic antropomorfization of modern man" (Balaž & Meštrović, 2018). We recognize two main types of technological changes: quant and development (incremental). Quant technological change is fundamental movement in technology that has innovation of new goods and services as a consequence. Two examples of that technological change are development of internet that brought to revolution in computer industry and development of genetic engineering that promises evolutionary results. Evolutionary trends such as digitalization have brought to significant revisions of many current understandings. Radical changes are happening from a revolutionary perspective. That perspective warns of modesty, restraint and thinking of boundaries of possible. Cybernetic systems always inaugurate control. That also goes for management as the most important social function in shaping. Digitalization of economic and social sector with use of modern technologies in business processes asks of informatics and cybernetic security of digitalized structure and achieves a significant development in that direction (Todosijević Lazović, 2010). Modern industrial process and smart organizations, without of incorporation of intelligent technologies, could not function. It would come to radical discontinuity in performing business missions, crisis and devastation of system. Technology is included in all organizational activities and its rapid changes will make technological change be a significant factor in almost every innovation of an organization.

We are witnesses of transfer from evolutionary change of knowledge economy into economy of many dimensions, determinations and common changes (Zelenović, 2011). Evolutionary occurrence is a natural continuum of prior relations in world of labor and an introduction to digital Darwinism.

IT with characteristics of universal diffusion, digital processes, installed and programmed robots, simplify the process and steps and make control more efficient. Digital robotization of profiled capacity has in advance defined software, just like digital profiling of production sand services of an enterprise represents an inevitable process. This process is inducted and autonomous. Process of robot development, by following evolutionary tendencies, brought to bio-robots, and cyborgs. With development of genetic engineering we are closing AI to mimicking a human. In segments, it came to speech, memory, thinking and decision making. Sensors are copying human brain. Are we facing a chi as a peak of AI? Tendency of implementation of robots is in expansion. Thanks to digitalization that provides networking, it is possible with informatization to project a system that could combine several functions (https://publications.hse.ru). We observe modern development of an enterprise, through its ability to apply technology and behavior of society on development itself with digital transformation in order of process tasks and achieved level of working culture. Enterprise with advanced digital technologies becomes a living organism that is able to evolve and in that way achieve a characteristic of self-participating, adaptive and self-organizing system. In order for digital transformation to be successful, it is necessary to achieve process of adaptation and active reverse action of an enterprise on its changing environment. User's needs are a determining on behavior of an enterprise in sense of profiling and production capacity. Those needs are diverse and unequal which implies a difernetiative approach in choice of business orientation. Modern enterprises are adjusting to users by "code halos" which gives them ability to map behavior. State of enterprises spirit determines ability of technical technological and innovative development. Research has shown that enterprises that have accepted process of digital transformation and existence of digital Darwinism, are far beyond competition and have much earlier entered in wanted future. Enterprises that have managed to realize process' of digital Darwinism, have managed to achieve a significant growth in value, especially in secondary economy sector.

If economies and societies will develop by laws of digital Darwinism in future, we can put an end on fact that there is no need for dark apocalyptical perspective of future. Future is on the other side of reality, but it is human to approach it (Todosijević & Todosijević Lazović, 2017).

We will observe process of digitalization as convergence of economy, informatics, telecommunications, computing, robotics and digital electronics. Characteristic of universal diffusion has made it possible for digitalization to have a place and use in all fields of human activity. Digital times are in the essence, achievements, process' and steps that came to be through evolutionary times. Evolution economy represents a research field of economy, by applying analogue methods, models and laws of occurrence, action and survival of nature and relationships of balancing and misbalancing, that take place in it. Role of knowledge is pointed out, as well as change and limitations for efficient functioning of economy. Theories of adaptation end exploitation are valued in comparison to surrounding in which permanent existence of entrepreneur theory is taking place (Schumpeter, 1997), resource-theoretical approach (Penrose,

1959), as well as theory of microeconomic equilibrium. Digital economy includes economic and social activities that make platforms such as internet, mobile phones and sensor networks and e-trade possible. Total contribution of digital economy to growth of a country consists of direct effect by accumulating digital capital and indirect effect measured with diffusion of digital capital in production system (Todosijević & Todosijević Lazović, 2018).

Evolution orientation on industry 4.0 could be a great chance for revitalization of economy as a whole, as well as society as a whole. It would be a way toward redistribution of jobs in world economy. Evolution and not revolution. Industry 4.0 has digital technologies as a base: internet, robotics, telecommunications, computers, cloud computing, cyber systems and big data are all included in concept of industry 4.0 (Todosijević & Todosijević Lazović, 2018). Individualism is beaten with digitalism. Networking occurs (Todosijević & Todosijević Lazović, 2018). It will come to turn around in new missions. New forces of altruistic and universal determination, which are present at the moment, will come to rule on global level, as an empire of ecological, ethical, economic, and cultural and political certainty. That will be possible when digitalization comes closer to absolute organization. It will come to affirmation of and universal intelligence, which will point out creative abilities and will create circular-relational, new type of economy that, will create resources without profit. It will develop in competition with market before it completely pushes it out, just like free market did to feudalism a few centuries ago. In EU, until 2030, they are planning to invest 1.350 billion Euros into industry 4.0, which means that it is dedicated to digitalization and development of industry 4.0. We need to react on these challenges. Wanted future, as best version of future, will happen only if and how much we approach it as a challenge with certain pace and intensity.

Under the influence of digitalization and robotization it will come to change of process' due to dynamic changes and organization redefining. Functional strategies (finance, procurement, production, personnel and marketing) will make combination of inner communications by which they act integrative, systematically and interdisciplinary. Program of integration of single professions is achieved. "Hybrid professions" occur.

Digitalization - ambitious future of agriculture

Historically observed, research and occurrence of technologies, in order of occurrence of mechanic, energetic and informatics machines, constantly accelerated. With occurrence of acting digitalism that gained characteristic of "fast, faster and furious". Usage of digital solutions for gathering information, processing and selection of information for management of agricultural field, assumes inner connection based relationship of all participants in functioning of one organizational system and its constitutive elements. Agro industry, that delivers agricultural machines and equipment, in interaction with food industry, which uses reproducible resources of agricultural origins and agricultural complex, represents a systematic and informatics symbiosis which has "specter of supply" as a consequence, where main function of that total and single output satisfies

demand, whether its productive or individual consumption. Target groups, mutually bonded and individually identified, form a network of evolutionary character, whose cohesion and way of functioning provides digitalization. Job for companies from agro industries, from which, many are small and medium businesses, are in great manner based on their ability to always improve current products and develop new, in order for brand to be one of the best on the market, just like cleaners and dump trucks are (https://www.teknologisk.dk).

Era of new technologies and intense development of new models and way of production and work is taking its toll on all means of industrial production and production diversification (Subic et al., 2010). Industrial development of new age influences agricultural sector and makes new evolution in digitalized industry possible (https://www.victorialogistic.rs). Informatization is a process of creating digital networks or physical things such as documents, photographs, recordings, sounds, or converting analogue signals to digital.

Digital transformation can be defined as integration of digital technologies (due to characteristics of universal diffusion) in all fields of business which results with fundamental changes in business and by delivering value to users. Therefore, using digital technologies that radically transform business models, generates new revenue flows and completely change business process' (https://startit.rs).

With digitalization of agriculture it is possible to close optimal yield to maximum possible and control irregularities in nature (droughts, floods, blazes and even earthquakes) which eliminates variations of agricultural output that from 2 to 4 times at the moment. Unlike digital approach in agriculture, mechanic approach represents danger for soil through dispatch or chemicalization. Robotization, digital information system and AI, based on pre defined software, with millions of processed pieces of data, are able, without consequences, to control and direct business systems to their state of sustainable balance and sustainability.

"According to latest research, predictions say that value of global market of smart agriculture in period between 2017 and 2022 will grow from at least 10 to 24 billion dollars, which is a 140% growth". Potentials exist. Skills and knowledge are needed for their management (http://www.color.rs).

Setting complete digital solutions represents setting complete interactions with numerous digital technologies that are necessary for implementation into machines and equipment, infrastructure, process', all with goal to sustain level of modern and competitive power. Enterprises of agricultural production is facing challenges from sphere of technological services and rapid digitalization, which is also made up of tools and methods that are including software and analytic modules as well as consulting tools. If a company wants to apply digitalization process', it can develop communication protocols and data bases, use some of generic methods, tested forms and proven methods of data analysis. Company strives toward cheaper and more secure process' of digitalization. That process requires combination of specialized competencies, for example, sensors,

managing data and advanced statistics in combination with knowledge from agronomy, which is a union of competencies which have only a few research entities.

For livestock production, it is possible to develop and implement standardized digital software. Specialties refer to type and layers (kettle, cows, beef, calf, oxen, sheep, goat, pigs, sows, fatteners). For poultry also (stretchers, broilers, and breeding flocks). For beekeeper's production, size of swarm and location are not sufficient, but also type of pasture (dredge, rapeseed, sunflower, linden, field, forest etc.) From diversification direction is toward special unifications.

For field crops production, things are more complicated. Base is economic policy, policy of agriculture, policy of natural rural areas, which can together be represented on degree of satisfactory generality. Key question is land policy. In Serbia, there are 18.6 million of parcels. Small possessions. Expenses are higher from one field to another than on the field itself. Application of digital technologies wouldn't give wanted efficiency. Exit is in enlarging parcels, pedological map and planned selective sowing (type of culture, size of land, expected yield). In future due to advancement in biology and genetic engineering overall, for vegetable production, soil will not be necessary, but only space and large number of information for defining digital process'. Production will be totally determined. Plants will be fed with special dose-meters, software designed compounds, systems that are managed for every type of plant separately (red eggplant, cucumber, lettuce, onions, potatoes, carrots etc.). Process is closed; there is no loss or disorder in plants nutrition. Every plant takes only as much food as it needs, and excess is returned to stock depot (there is no spilling and decay in soil) from where with circular flows, is in constant communication with the plant. Plant maturity process is speeding up, because plants do not "sleep". Produced light is equal to sunlight, and we also have 3D printer! Information is becoming primary input data. With transformation of information into job it gets materialistic dimension and value. Business data imply activities that are tied to business models. System becomes networked. Technologic digitalization comes to being through relationship of interdependence with enterprise form the field of "closed olericulture" (greenhouses) and environment protection technologies, as well as machine building, electro machine building, computer, robotics, knowledge, skills about function of stable based on digital solutions. Technology in business network should not be a limitation. Search for it (research or commercial) is nonstop, because technical progress doesn't bypass a single field of economic and social activities.

By using smart phones or computers, it is possible to monitor, manage and in optimal way set up all flows and process of an enterprise. With users' technologies, agriculture will be able to follow changes of total plant production and to have a detailed insight into state of crops on the open (http://www.color.rs).

Hardware and software solutions are on highly competitive level can provide support for agriculture and all of its organizational units (farms, field farming, apiaries, viticulture, herbs, greenhouses, and orchards). From production, storage, transport and sales support is possible and absolute functioning of digital system through content of

a complex and priority field such as agriculture. System becomes networked, and that is a base for its functioning. Informatization and digitalization will bring downfall in costs of communication. Development of agricultural and food sector has brought up level of industry, which affected development of economic markets on international level. Conditions for competitive advantages are made (Erokhin, Ivolga, Andrei, Cvijanović, 2013). Generally observed The obtained directed results showed that during the observed period as a whole Western Balkan countries significantly, but still insufficiently improved creation of favorable conditions for business activities" (Cvetanović, Nedić, Despotović, 2019).

Digitalization of agriculture and combination of business activities

In Serbia, there is a project for construction of free standing solar photovoltaic power plants in free areas outside of towns based on analysis of soil that is good for the project. Power of solar plant is 3 mega watts on which author of this work have worked. Cell based panels haven't been chosen (shade blocks work of the whole panel), but were chosen based on their technical solutions (no stopping in function of solar panel or in mutual exchange). Panels are set on 3m tall stands with sensors that are always pointing panel toward the source of light, in order to achieve maximum capacity. Location, deserts - sour soil that is not good for farming, but when nourished with nitrogen it gives an area for breeding 3000 sheep. Through two synthesized investments we go over self organized and adaptable to digitalized farm and a solar plant. Circular economy than occurs and many other digitalized production and services process'. Specialized teeter is possible, specialized dairy farm, honey bee development, leather processing, wool, confection etc. With help of inventory for solar and wind generated energy, we storage produced solar energy (electricity) and provide continuous supply of users or complete delivery to single electro energetic systems. Recycling of organic waste produces CH4 gas, and with small modifications we have free energy source on a farm. All structures, investments installation of circular economy in this field, through return of invested means for period of 4 to 5 years, in continuum of its functioning and achievement of its mission will be above average competitive, and total efficiency of installed capacities (energetic, productive and servicing) will be above average. There are no limits regarding geographic areas for building solar plants and additional production capacities of livestock production and on it based other industrial capacities. Whole system and its sub systems can be projected to a degree of high level of determination with work force that would have function of communication, control and management. Generally observed „powerful competition can bring significant benefits to consumers, taking into account that manufacturers are superior in terms of product quality, prices, service delivery, warranty period, deferred payment and various other bonuses to attract as many customers as possible to their product or service". (Nikolić, Vesić, Cogoljević, 2019)

Based on world's food organization FAO, it is estimated that with use of new technologies, IT sectors has potential to help growth of agricultural productivity up to 70% until 2050. At this moment, 70-80% of new agricultural equipment contains

a component that relies on concept of precise agriculture. Based on IBM's research, 90% of all losses from crops occur due to bad weather conditions. These crop damages could be lesser by 25% with usage of prognostic modeling of weather and techniques of concepts of precise agriculture (https://www.victorialogistic.rs). Our last stands about an organization in the future correspond with prognostic statement of FAO organization, with that that tendency of growth and efficiency will depend on level of achieved and level of technical and technological equipment of the system and ability to manage it. "Identification of perfect time and amount of every input used for production on every field, production can personalize, apropos, maximally optimize for every producer with simultaneous lower of costs of production. New technologies of ground recordings and infra red images will be able to point out fields and their parts that are suffering stressful factors even before they can be noticed by humans (https://www.victorialogistic.rs). It is confirmed that digital technologies with their predictive action have place in managing risks whether they are they are caused by humans or nature. "Electronic book of fields" gives objective possibilities for management and control of activities and process'. All information that come, lead to materialistic changes, which are recorded, by creation of new information for management behavior and decision making. Profession of accountants gains importance.

"Two times more food with twice less effort", project from Holland from the 90's has confirmed and overcome expectations in less than 20 years, because on "ranking list of countries for export of agricultural goods Holland is 2nd in the world behind USA that has 161 times more farm lands than Holland. In 2017 only from export of agricultural goods Holland has earned a recording 91.7 billion Euros" (https://www.netokracija.rs). Organization and ability to mobilize resources is a key factor for success.

Conclusion

Total contribution of digital economy to growth and development of economic and social systems, is made up of digital effect with accumulation of digital capital and indirect effect measured with diffusion of digital capital in production system (Todosijević & Todosijević Lazović, 2018). In total complex occurrence and action, digital agriculture gains characteristic of strategic sector of social economy and its contribution to growth of state and economy is greater than contribution of traditional sector. Reproducing resources of agricultural origin come as a base for industrial changes. With digitalization of agriculture and occurrence of benefits that it provides, we achieve chain effect in chain of value that connects and extends. Complete industrial adaptation occurs. There is no waste, everything is recycled. Circular economy with digital organization is confirmed and earns right for citizenship. Digital economy is becoming vector of growth of production and competition of companies and countries. Its transversal nature affects all sectors of economy, including innovative sectors. Its achievement is: it made everyone around it dependent on it. It has become a universal technology that has produced many developing influential information and communication technologies on economic sectors. It affects growth, productivity of economies, governing states, including: company's environments,

individuals, households and their behavior. Dilemma, which soon will not be, is: will intellectual capitalism become dominant and push out goods capitalism? It is a fact today, that huge masses of poor intellectual nomads, infranomads, are crossing borders in search for jobs. Using electronic, generic, genetic and nanotech discoveries, resources will thin out while robots will multiply. We are witnesses of a hyper conflict. That will, however, not happen, because humans' greatness is made up form freeing from destiny through developmental projection of the future.

Conflict of interests

The authors declare no conflict of interest.

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