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Sumy State University  
Oleg Balatsky Academic and Research Institute  
of Finance, Economics and Management

**Modern Challenges towards Sustainable Development:  
Dialogue between People and Countries**

**Proceedings**

of the 1st International Scientific Forum

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For scientists, students, graduate students, business and non-governmental organizations and higher education institutions and a wide range of readers.

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<b>TABLE OF CONTENTS</b>		P.
<i>Abayomi Awujola</i>	SUSTAINABLE DEVELOPMENT AND POVERTY ERADICATION IN NIGERIA: CHALLENGES AND WAY FORWARD	6
<i>Boiko Olena</i>	ASPECTS OF BEHAVIOURAL ECONOMICS IN MAKING DECISIONS CONCERNING LIFE INSURANCE	9
<i>Chortok Mykyta, Chortok Yuliia</i>	ICT APPLICATION FOR SMART EDUCATION	12
<i>Chortok Yu. V., Nechyporenko R.M.</i>	MODELING THE LOGISTICS INFRASTRUCTURE OF GREEN SMART CITIES IN UKRAINE BASED ON EU EXPERIENCE	17
<i>W.H. Duranowski, O.I. Karintseva, S.V.Tarasenko</i>	ARTIFICIAL INTELLIGENCE TECHNOLOGIES in WAY of SUSTAINABLE SEVELOPMENT	21
<i>L. Hens, Th. Nguyen</i>	CLIMATE CHANGE HAZARDS IN VIETNAM	27
<i>O.I. Karintseva, S.V.Tarasenko, A.V. Dyachenko</i>	INDUSTRY-4.0 AND SMART-STRATEGY OF COUNTRIES AND REGIONS	28
<i>Kotenko Nataliia, Tverezovska Oleksandra</i>	THE VALUE ADDED TAX: SWITZERLAND VS UKRAINE EXPERIENCES	33
<i>Maryna Lytvyn, Serhii Kasian</i>	PROVIDE MARKETING SUPPORT FOR SUSTAINABLE DEVELOPMENT IN THE CONDITIONS OF GLOBAL CHALLENGES	37
<i>Petrushenko Yuriy, Buival Aleksandra</i>	ROLE OF IMF IN INTERNATIONAL CURRENCY-CREDIT RELATIONS REGULATION	41
<i>Petrushenko Yuriy, Koldovska Mariya</i>	CURRENT TRENDS IN THE GLOBAL CONSULTING SERVICES MARKET	44

<i>Petrushenko Yuriy, Opanasenko Yelyzaveta,</i>	CURRENT TRENDS IN THE GLOBAL TRAVEL SERVICES MARKET	48
<i>Skarupa Olena, Vlasenko Kateryna</i>	THE TRANSFORMATION OF MODERN MANAGEMENT PARADIGM FOR FUEL AND ENERGY COMPLEX ENTERPRISES	52
<i>Petrushenko Yuriy, Ponomarenko Oksana</i>	FINANCIAL PLANNING FOR THE STRATEGIES IMPLEMENTATION OF SUSTAINABLE LOCAL DEVELOPMENT	55
<i>Vladyslav S. Piven, Oleksandr V. Kubatko, Leonid H. Melnyk</i>	ADVANTAGES AND DRAWBACKS OF BIOPLASTICS PRODUCTION FOR GREEN ECONOMY	58
<i>Sabadash Viktor, Abulbire Theophius</i>	ECONOMIC DECISIONS IN THE BUSINESS ENVIRONMENT	63
<i>Sabadash Viktor, Katya Bohomolova,</i>	“GREEN” BUSINESS AS A TOOL OF ECOLOGIZATION OF UKRAINE'S ECONOMY	68
<i>Skarupa Olena, Treus Alla</i>	UKRAINIAN NATURAL HONEY TRADE: MARKET DEVELOPMENT	73
<i>Uvarov Andrew, Petrushenko Yuriy</i>	DEPENDENCE OF CONSUMPTION AND EXPORT OF MEAT FROM WELFARE IN THE COUNTRY	78
<i>Mayboroda T.M., Lysak D.O.</i>	FEATURES OF APPLICATION OF KAIZEN AND TOTAL QUALITY MANAGEMENT (TQM) APPROACHES IN QUALITY MANAGEMENT AT ENTERPRISES	81

# **SUSTAINABLE DEVELOPMENT AND POVERTY ERADICATION IN NIGERIA: CHALLENGES AND WAY FORWARD**

*Abayomi Awujola Ph.D  
Head of Department  
Department of Economics  
Bingham University, Nigeria*

## **Introduction**

The Nigerian economy is one of the largest in Africa. Since the late 1960s it has been based primarily on the petroleum industry. The Government recognizes since then the need for sustainable development and adopted various policies including the National Economic Empowerment Development Scheme (NEEDS), National Vision 20:2020, and the Transformation Agenda, were geared towards ensuring sustainable development in Nigeria. These policies are aimed at poverty eradication and wealth creation; improving the livelihood of our people; making the investment climate better for local and foreign investors; protecting our environment and conserving our natural resources; as well as ensuring the safety and security of life and property.

## **Concept of Sustainable Development.**

It must be understood that there is no single definition for sustainable development but they key idea common to all definitions concerns resource exploitation at a rate that would not prove detrimental to future generations. For instance, according to the Complete A-Z Geography Handbook sustainable development is defined as “development that meets the needs of the present, without compromising future generations to meet their own needs.

According to the direct Government website UK “Sustainable development means a better quality of life now and for generations to come. It means not using up resources faster than the planet can replenish, or re-stock influences decision making with organizations, and therefore can go towards forming principles and business ‘values’

According to the international Institute for Sustainable Development (IISD) sustainable development has been defined in many ways, but the most frequently quoted definitions is form Our Common Future, also known as the Brundtland Report: “Sustainable development is development the meets the needs of the present without compromising the ability of future generations to meet their own needs.

## **Development Challenges**

**1. Economic challenges** The critical economic issues concern the need to foster sustainable rapid economic growth that will cater for the needs of over 180 million people and the imperative for proper integration of its domestic economy with the world economy. Nigeria's economy is still characterized by declining capacity utilization of major infrastructural facilities, large budget deficit, unacceptable level of unemployment and inflation. In addition, the economy had critical problems of dependence as well as undue reliance on a single commodity, which is oil, weak industrial base and private sector, low level of agricultural production and high debt overhang and inefficient public utilities.

**2. Socio-Political challenges.** Still unstable

**3. Environmental challenges** The direct environmental hazards faced by different ecological regions of the country are many and varied. The factors of increasing environmental stress include increasing pressure on natural resources due to large population that is increasing at a high rate, unsustainable agricultural practices, the imperative of industrialization and economic growth as well as rapid urbanization due to unplanned and uncontrolled rural-urban migration.

**4. Regional challenges.** Regional disparities in development are not an uncommon phenomenon in countries. The issues with regional development in Nigeria include low access to infrastructure, high poverty levels, unplanned urban sprawl, intermittent religious and ethnic conflicts and environmental degradation. The disparities in regional development are due to a number of factors, which include history, culture, natural endowment and the factor of politics.

**5. Science and Technology** The efficient use of scientific and technological advances is essential for economic development and social progress. One major factor militating against national development is poor scientific and technological support, and the research and development patronage. The government acknowledges that globalization is largely driven by information and communication technology (ICT), and that knowledge has become a principal force of social transformation.

## **Policy Framework**

Broad economic reform programmes are being put in place in response to the severe economic crisis, which the country faced. Government realizes the importance of privatization and the need to restructure the economy. A number of policies have been put in place to liberalize, deregulate and privatize some key sectors of the economy such as the National Electric Power Authority, telecommunication, downstream petroleum and steel sectors. These policy reforms combined with

investment in human capital, physical infrastructure and good governance are essential to achieving self - sustaining long term economic growth.

- (i) macroeconomic framework;
- (ii) job creation;
- (iii) public expenditure management;
- (iv) real sector development; and
- (v) Infrastructure development.

The key policies to be pursued by government during the programme period are as follows:

- i. Ensuring greater harmony between fiscal and monetary policy.
- ii. Sound macroeconomic policies, including fiscal prudence supported by appropriate monetary policy to contain inflation at single digit.
- iii. Alignment of national budget
- iv. Revenue allocation through balanced fiscal federalism.
- v. Institutionalizing development planning

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## ASPECTS OF BEHAVIOURAL ECONOMICS IN MAKING DECISIONS CONCERNING LIFE INSURANCE

*Olena Boiko, PhD-student  
Sumy State University, Sumy*

Social protection is an integral part of the economic activity of every country as a whole and the right and duty of every citizen in particular. Pension insurance, as a component of social protection, is in the process of changing both legislative and of rethinking of citizens' attitudes to the issue of their own well-being. In other words, the reform redistributes the emphasis from the state's obligation on the citizen's obligation to take care of his own pension savings. In this context, we are talking about accumulation and, as a consequence, investing. Life insurance is an effective tool and it is worth considering making decisions concerning this kind of insurance through the behavioral economics.

This issue can be studied in accordance with the behavior of insured as consumers of insurance services; insurers as insurance providers; other economic agents which interact and influence the behavior of both insured and insurers.

Considering the behavior of insurers as insurance providers, we can say that it is regulated by legislative acts, economic processes, financial condition of each particular insurer. In general, their activities are the subject to the classical principles of economic theory, although the impact of the individual approaches of each individual participant is quite significant. More interesting and difficult is the behavior of potential insured. Classical theories say that all participants of financial relations are rational. These participants are able to comprehend the suggestion in a right way and as a consequence to make a correct decision. But as it occurs it is not so. From the point of view of behavioral economy not all participant are totally rational. People mostly behave irrationally and as a result they can make wrong decisions.

Generally insurance is divided into statutory public and voluntary insurance. When it comes to statutory public insurance, there is a demand for such insurance products, but it is mainly based on the need and fear of getting a fine that far exceeds the payment for the service itself. Voluntary insurance is more difficult to study from the point of view of the behavior of insured, as it is based on their own interest in providing financial support in the event of an unforeseen situation. An important step is building relationships between the insurance company and the client on the one hand, and the state's participation in these relationships on the other.

Theories of potential clients' decision making that can be used to reduce the number of ineffective insurance decisions and to fully understand the nature of insurance have already been proposed to study. Since retirement insurance is based on the principle of voluntariness of each individual, so the behavior of potential insured in decision making carries a wide range of aspects to study. Contemporary decision-making theories under uncertainty are divided into: rational theory of expected utility, utility theory of status-dependent, cumulative theory of perspectives, contribution-effect theory, status-quo theory, theory of pity and disappointment, social theory (Kahneman, D., 1979). These theories help to understand the psychological features of potential insured. Their knowledge and its proper usage will help them to master the principles of financial literacy, which will result in a qualitative impact on the general well-being of citizens. However, knowledge of these laws can have the opposite negative effect.

Since the life insurance system is designed to equalize the income of an insured regardless of economic status, ownership conditions, health and other conditions, and with many benefits, this type of insurance is not in wide demand among citizens of Ukraine. Many factors influence the decision to take advantage of such a service. This can be age, gender, place of residence, level of education and awareness, social circle, psychological factors. According to statistics, only 3% of Ukrainian citizens have long-term life insurance programs (Life Insurance Companies' Rating (2019). Those who agree to have a funded program have their own reasons for making such a decision. This is their own understanding of the problem, fear of the future, status solution, peace of mind for their own financial future and some others.

Those who refuse such insurance services give a great number of objections why it is not interesting. Among the most common refusals we can speak about the following: the state should take care of the pension; do not consider it is necessary; will not live to retirement age; children should take care of the parents; do not need it, etc. But in most cases, only two components matter. These are: I do not believe (in the law, in the company, in the company representative, in the country) and have no money to reserve. Distrust is mainly based on ignorance or negative experience. Scientists say that things which people possess are more valuable than things that they cannot hold in their own arms. Talking about life insurance, we are talking about the so-called "long money" that will be able to receive over the longer period (Koliadych, O.I., 2017). We can say that cumulative life insurance ensures the safety of nonexistent money in a family. But for a lot of people it is quite difficult to understand the essence of insurance, accustom yourself to discipline to save money that is not allowed to be used at once. However, understanding the principles of the psychological aspects of behavior can influence decisions.

Behavioral economics relies on psychological peculiarities of human decision making and builds different predictive models on the basis of this. However, the methods of behavioral economics do not yet allow us to construct a more accurate

model of a particular person's behavior in specific circumstances under uncertainty. They only allow to explain these methods in a general way.

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## ICT APPLICATION FOR SMART EDUCATION

*Chortok Mykyta, student*

*V. N. Karazin Kharkiv National University, Kharkiv, Ukraine*

*Chortok Yuliia, PhD, As.Prof.*

*Sumy State University, Sumy, Ukraine*

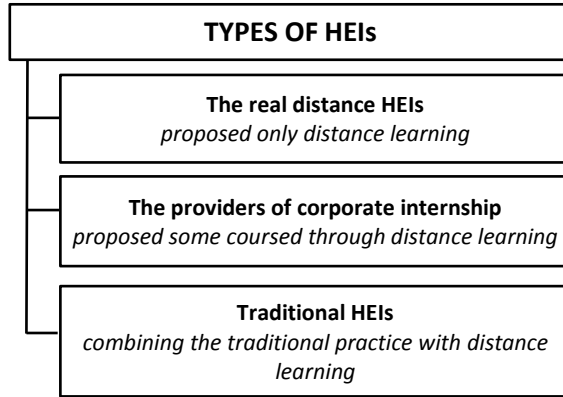
In the last 20 years there have been great changes in the environment where the higher educational establishments of Ukraine operate: Structural changes at the labor market have taken place; requirements to prepare specialists have become more dynamic and changeable; the level of competitiveness at the market of educational services has increased significantly (Velychko et al., 2018). Modern education requires new teaching and learning approaches like lifelong learning (Vorontsova et al., 2018), student-centered learning (Degtjarjova et al., 2018).

Depending on the extent of the e-learning technologies, using in the learning process, now it is possible to state the implemented distance learning form as one where it is the highest.

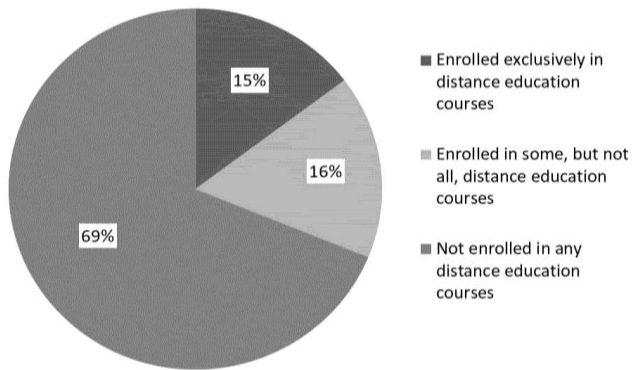
The research results show that traditionally in the world practice three forms of educational institutions that offer the possibility of distance learning are distinguished:

- "natural" distance universities (offer only a distance education form);
- providers of corporate training and / or advanced training courses (passing only certain courses on distance technologies);
- traditional universities that along with traditional forms of study (full-time / part-time) offer online learning (Figure 1) (Kubatko et al., 2015).

In the USA the percentage of students enrolled exclusively in distance education courses varied by institutional control. Approximately 49% of the 1.4 million students enrolled at for-profit institutions were enrolled exclusively in distance education courses, as were 18% of the 4.1 million students enrolled at nonprofit institutions and 11% of the 14.7 million students enrolled at public institutions. At Figure 1 the percentage distribution of all students enrolled at distance education in United States is presented (Ginder et al., 2016).



**Fig. 1.** Classification of HEIs under the e-learning concept (Sources: compiled by the authors on the basis (Kubatko et al., 2015)).

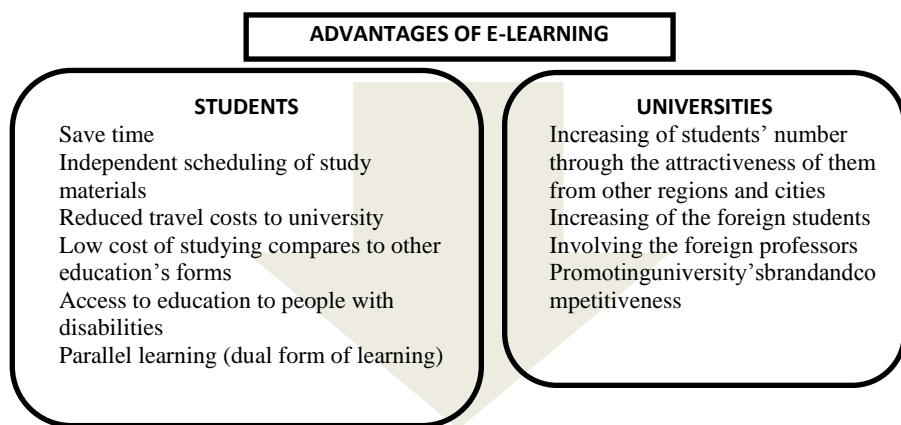


**Fig. 1.** Percentage distribution of students enrolled at distance education in the United States

Distance learning provides the opportunity of continuous access to learning materials, constant support of tutorials and educators. Particular attention is paid to the virtual simulators and other technological solutions to establish effective learning process and model real-life economic situations. The use of ICT application in

distance learning guarantees the 100% supplying proper learning materials and reduced tuition costs in comparison with face-to-face education.

The findings proved that e-learning allows gaining education for people with disabilities. Besides, e-learning gives the opportunity to study parallel at once in two or more universities and to obtain a degree on several specialties. Considering the above-mentioned, e-learning boost developing of academic mobility program. At the same time, ICT allows involving the foreign professor to the educational process through the online lecture, conferences and webinars. The consolidation information of e-learning for main stakeholders (students and universities) is shown in Figure 2.



**Fig. 2.** Compilation of e-learning for main stakeholders (Sources: compiled by the authors on the basis (Kubatko et al., 2015)).

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## **MODELING THE LOGISTICS INFRASTRUCTURE OF GREEN SMART CITIES IN UKRAINE BASED ON EU EXPERIENCE**

*Chortok Yu. V., PhD, As.Prof.  
Nechyporenko R.M., PhD-student  
Sumy State University, Sumy. Ukraine*

According to the World Economic Forum, 9-10% of the emissions of greenhouse gases and other non-hazardous substances are logistic infrastructure, and transport is the source of 50% (90% is the share of freight). At the same time, transforming the logistics infrastructure of ordinary cities into green Smart-City standards requires large capital investments from both the state and local authorities, as well as from businesses.

According to (Dehtyarova et al., 2014; Melnyk et al., 2012; Melnyk et al., 2013; Shkarupa et al., 2017) attracting funds from EU through grants, technical support, preferential loans and other financial instruments (including stocks and bonds) is the only possible way in solving this problem, but it requires the effective cooperation of the authorities, the community and local businesses. Therefore, it is important to find out, how Smart cities and their logistic infrastructure are organized as how different stakeholders can be involved in discussing plans to build city's logistics infrastructure.

In our previous scientific works (Chortok and Nechyporenko, 2017; Chortok and Rodymchenko, 2014; Chortok et al., 2013; Chortok et al., 2018) we reflected environmental, economic and social effects of reorientation of the city's transportation and logistics system, the main components of the logistics infrastructure and their role in creating green Smart-City; the role of business in shaping green Smart-City and the experience of EU countries in stimulating business to participate in local infrastructure development; prospects for the use of digital technologies in the work of a regional logistics center in order to increase the ecological and economic efficiency of its activities etc.

Now for us it is important to develop scientific and methodological tools and to develop an optimistic model for the transformation of logistics infrastructure of Ukrainian cities to meet the requirements of green Smart-City, taking into account

EU standards of environmental safety and energy efficiency, cartography of existing logistics objects, financial constraints on their radical restructuring, priorities of local business.

Thus, the formation of an optimized model of logistical infrastructure of green Smart-City in Ukraine requires systematic consideration not only of economic and environmental characteristics of the municipal environment, but also the existing specifics of business conditions, best EU practices and ensuring harmonization of relations between the population, business and government.

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## ARTIFICIAL INTELLIGENCE TECHNOLOGIES IN WAY OF SUSTAINABLE SEVELOPMENT

*W.H. Duranowski, Associate professor  
University of Opole, Poland  
O.I. Karintseva, associate professor  
S.V. Tarasenko, senior tutor  
Sumy State University, Ukraine*

In the 21st century, the urgency of environmentalizing production technologies and processes is actualized directly by the development of human society (Hens et al., 2018; Karintseva, 2017). So in the work on the natural benefits of nations structured the evolution of cycles of economic development. In the 90 years the fifth cycle began, the third industrial revolution, characterized by the use in the production of ICT, the beginning of the priority use of renewable energy sources, took plac (Rui et al., 2019; Shkarupa et al., 2016).

Artificial intelligence (AI) refers to systems that display intelligent behaviour by analysing their environment and taking actions – with some degree of autonomy – to achieve specific goals. AI-based systems can be purely software-based, acting in the virtual world (e.g. voice assistants, image analysis software, search engines, speech and face recognition systems) or AI can be embedded in hardware devices (e.g. advanced robots, autonomous cars, drones or Internet of Things applications). We are using AI on a daily basis, e.g. to translate languages, generate subtitles in videos or to block email spam. Many AI technologies require data to improve their performance. Once they perform well, they can help improve and automate decision making in the same domain. For example, an AI system will be trained and then used to spot cyber-attacks on the basis of data from the concerned network or system (AI for Europe, 2018).

Main elements that compose AI, which are “data” and “algorithms”. AI can be integrated in hardware. In case of machine learning techniques, which constitute a subset of AI, algorithms are trained to infer certain patterns based on a set of data in order to determine the actions needed to achieve a given goal. Algorithms may continue to learn when in use. While AI-based products can act autonomously by perceiving their environment and without following a pre-determined set of instructions, their behaviour is largely defined and constrained by its developers. Humans determine and programme the goals, which an AI system should optimise for AI applications could consist of the following key features:

- training data;
- data and record-keeping;
- information to be provided;
- robustness and accuracy;
- human oversight;
- specific requirements for certain particular AI applications, such as those used for purposes of remote biometric identification.

AI is a collection of technologies that combine data, algorithms and computing power. Advances in computing and the increasing availability of data are therefore key drivers of the current upsurge of AI.

Current and future sustainable economic growth and societal wellbeing increasingly draws on value created by data. AI is one of the most important applications of the data economy. Today most data are related to consumers and are stored and processed on central cloud-based infrastructure. By contrast a large share of tomorrow's far more abundant data will come from industry, business and the public sector, and will be stored on a variety of systems, notably on computing devices working at the edge of the network.

AI ecosystem can bring the benefits of the technology to the whole society and economy:

- for citizens to reap new benefits for example improved health care, fewer breakdowns of household machinery, safer and cleaner transport systems, better public services;

- for business development, for example a new generation of products and services in areas where Europe is particularly strong (machinery, transport, cyber security, farming, the green and circular economy, healthcare and high-value added sectors like fashion and tourism);

- for services of public interest, for example by reducing the costs of providing services (transport, education, energy and waste management), by improving the sustainability of products and by equipping law enforcement authorities with appropriate tools to ensure the security of citizens, with proper safeguards to respect their rights and freedoms (On Artificial Intelligence, 2020).

While digitisation is affecting the structure of the labour market in particular through the automation of middle-skilled jobs, AI could have a more significant impact on lower skilled jobs.

The impact of AI systems should be considered not only from an individual perspective, but also from the perspective of society as a whole.

Fig. 1 is demonstrated effects of influence AI technologies to sustainable development.

Effects of using AI technologies in processes of achieving sustainable development include (level of economy):

- creating new workplaces;
- change sales and consumption processes (mostly have no intermediaries);
- change production processes (less labour, more capital);
- decreasing time of duration production processes;
- decreasing consumption of recourses (natural, material). It deals with less mistakes of AI in production, reduction of waste and defective products;
- increasing productivity in economy.

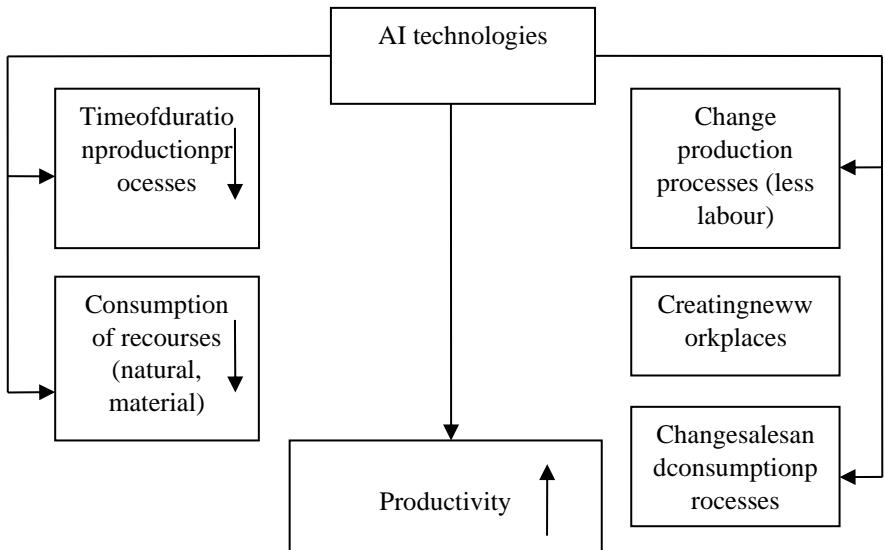


Figure 1. Effects of influence AI technologies to sustainable development (level of economy)

That why AI forming way of sustainable development, using resources in more efficiency way. Main advantage of AI direction in achieving sustainable development's goals is transform economy on basis of information society.

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## CLIMATE CHANGE HAZARDS IN VIETNAM

*L. Hens, PhD*

*Sumy State University*

*Th. Nguyen, PhD*

*Oregon State University, USA*

Human ecology allows putting physical environmental phenomena in the interdisciplinary context of the human society. This contribution reviews two case studies closely related to climate changes in heavily impacted Vietnam in a human ecological context.

The first part is about coastal erosion in Ky Anh, an area covering seven communes near the center of Vietnam. A transects approach on Landsat images covering the 1969-2013 period shows that accretion during the early period developed into erosion of beaches and dunes of 24-92.5 m/year in 2013. The data are valuable to develop a flood hazards response and to identify proper areas for planned new neighborhoods for people who lost their houses as a result of the erosion and the declined natural protection against floods.

Related to this first issue are the monetary impacts of beach erosion. This was studied near Hoi An, an historical port in Central Vietnam, which more recently developed in an artists city and a tourism hot spot. Radar satellite images between 2005 and 2015 evidenced the coastal erosion in the beach areas near the city center. Satellite image information was combined with questionnaire data to estimate the revenue impact for tourism for 209 transects. Estimated losses ranged between 53000 and 3914000 \$US/year. The loss for the tourism sector is most significant. The problem will not be solved by physically protecting and fortifying the coastline alone. A more integrated approach of sustainable beach protection and conservation is advocated.

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## INDUSTRY-4.0 AND SMART-STRATEGY OF COUNTRIES AND REGIONS

*O.I. Karintseva, associate professor*

*S.V.Tarassenko, senior tutor*

*A.V. Dyachenko*

*Sumy State University*

Industrial revolutions occur during periods of accumulation of innovations and, as a result, imbalance between productive forces and the existing information technology base (Karintseva et al., 2018; Melnyk et al., 2019, Проривні, 2020 ).

The first industrial revolution began with the advent of steam engines, which allowed the transition from manual labor to machine. The second industrial revolution occurred with the development of electricity and was characterized by the development of mass conveyor production. The third industrial revolution began with the creation of digital computers and the subsequent evolution of information technology.

Industry – 4.0 envisages the automation of large-scale manufacturing processes, reduced costs of manufacturing personalized products, increased productivity, and the potential economic growth of regional economies. Industry-4.0 technological changes are aimed at creating more complex digital industries by overcoming the barriers between information and physical elements.

The architectural framework Industry -4 .0 is the RAMI 4.0 model, which includes 3 dimensions. The first hierarchical dimension consists of 7 levels of aggregation (connecting the world, enterprises, work centers, stations, control devices, field devices, and products). The second dimension is related to the description of objects and products based on the IEC 62890 standard and value flow. The third dimension covers 6 architectural layers: an enterprise and its business processes, asset functions, required data, communications, integration (transition from the real to the digital world), assets (physical things in the real world).

Industry 4.0 is characterized by the following features:

- digitization and vertical integration in the value creation process (from product development and procurement to manufacturing, logistics and service);
- digitization and horizontal integration of value creation processes. Horizontal integration goes beyond the scope of a single enterprise and encompasses suppliers, consumers and all key partners in value creation processes;
- digitalization of products and services. Digitization's goods involves the addition of existing products with intelligent sensors or communication devices that are compatible with data analysis tools;

- digital business models and customer access. Companies are expanding their service offering revolutionary digital solutions, such as integrated personalized data-based services and integrated platforms that make it easier for customers to access the company's products and services.

The transformation of the economic system of countries within the framework of Industry-4.0 is realized with the help of smart-strategies, which are formed taking into account the competitive advantages and resources of the country and its regions. For example, Singapore has launched a smart strategy, an artificial intelligence strategy, to achieve the status of a global hub for AI solution development, testing and scaling. Europe's current and future sustainable economic growth and societal wellbeing increasingly draws on value created by data. AI is one of the most important applications of the data economy. Today most data are related to consumers and are stored and processed on central cloud-based infrastructure. In Austria, the Vienna region has chosen for itself a smart strategy - the development of start-ups and innovative research. Slovakia's smart strategy is based on the automotive industry, computer and optical products, information services, chemicals and electrical equipment. The country is also focusing on health and food technology (healthy food).

The regional smart strategy of Lapland (Finland) is aimed at creating a new eco-efficient, low-carbon Arctic industry, creating bio-terminals and developing bioenergy. Bavaria (Germany) concentrates smart-strategy in the areas of cybersecurity, large data sets, robotics, rational energy, digitization of all industries. The Silesian Voivodeship of Poland has chosen eco-industry, mobile services, advanced production systems, micro / nano-electronics as the flagships of smart strategy.

Ukraine has no plan of implementation Industry-4.0. In the same time Ukraine has Concept Development of the Digital Economy and Society of Ukraine 2018-2020, which identifies key components of the implementation Industry 4.0 - creation of infrastructure Industry 4.0 (industrial parks and industry centers of technology); providing access to capital to create new innovative industries. Some aspects of industrial measures are part of regional strategies. Introduction of the smart specialization approach is foreseen to achieve goals of Strategy development industrial complex of Ukraine until 2025 year. Ukraine is still developing strategic documents of implementation smart specialization strategies and Industry 4.0 policy.

Thus, Industry-4.0 is implemented using smart strategies. Countries have to form institutional base of the transition to a new technological way.

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## THE VALUE ADDED TAX: SWITZERLAND VS UKRAINE EXPERIENCES

*Kotenko Nataliia, Ph.D., Associate Prof.  
Tverezovska Oleksandra, Master`s Program Student  
Sumy State University, Ukraine*

Taxes are a part of the financial system at both the macro and micro levels. Each country goes different economic ways (primarily market or command-administrative), has its own peculiarities in the development of the economy, in the dynamics of economic processes, which affects the development of individual components of the general economic system, as well as the taxation, which belongs to the financial systems and must constantly adapt to changes in society.

There is no perfect tax system in any country in the world, because each has its advantages and disadvantages. Citizens of the country are always dissatisfied with having to pay taxes, but since the state is not able to function effectively in the absence of a tax mechanism, it must create conditions that will not be destructive to the welfare of their citizens.

In Ukraine, the most decisive tax throughout the tax system has become VAT. Our national version of the universal excise tax has one fundamental difference from “Western-economy” counterparts, namely that it applies to various monetary transactions, as well as to those that are not subject to VAT in the EU and other highly developed countries. In this sense, VAT in Ukraine is essentially a tax on monetary transactions, including those related to the inter-firm value-added production turnover. The comparison of VAT features of Ukraine and the country with successful experience in indirect tax management can give us an image of possible problems in this sphere. In this case, one of the fruitful examples of the tax system`s organization is a highly developed country – Switzerland.

The most important point is the tax rates, which are a kind of reflection of how much the state "puts pressure" on citizens and businesses. Table 1 demonstrates the difference between VAT tax rates in Switzerland and Ukraine.

Swiss law, unlike Ukrainian, distinguishes between the exemption from taxation and the exclusion of turnover from taxation. In both cases, no VAT is charged. The differences primarily affect the deduction of input tax. For goods excluded from taxation, VAT deduction for purchased goods and services related to such excluded turnover is not allowed. Services in the field of healthcare, education, culture, sports,

social security, most banking and insurance services, rental and sale of real estate, as well as turnover from gambling and lottery are excluded from VAT.

However, in cases excluded from taxation, in most cases the taxpayer is given the opportunity to opt for voluntary taxation. This option is not possible for banking and insurance turnover, as well as rental real estate exclusively for residential purposes. In contrast to services excluded from VAT, for exempted VAT, it is possible to deduct all preliminary taxes to be levied as part of the generation of the corresponding turnover (genuine exemption). For example, export of goods is exempted from taxation (Overview, 2020). Contrary, VAT is not obligatory to Swiss entrepreneurship abroad. Such an example is the prominent result of international commercial models.

No doubts, taxes have a fairly high share in the revenue of any public budget, and they are the main source of its filling. In Ukraine, there is a high dependence of the budget on indirect tax revenues. As demonstrated in Figure1, together with the excise tax, VAT accounts for more than half of the state budget revenues.

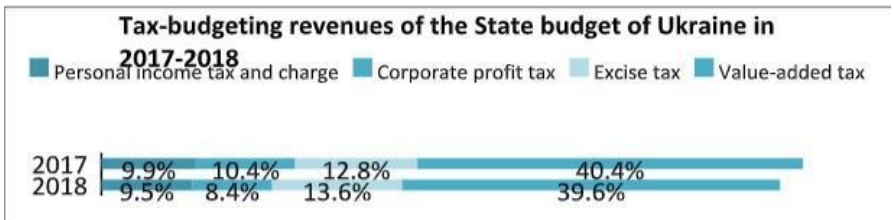


Figure 1 – Tax revenues structure of the State budget of Ukraine (Official, 2020).

The tax structure in Switzerland is characterized by higher revenues from taxes on personal income, profits, and gains, taxes on corporate income & gains; and property taxes and by low revenues from SSC, VAT, and goods and services taxes. In accordance with the OECD data (Stat, 2020) the ratio of VAT in total tax revenue in the 2017-2018 year is only 33% (around 22 bln.franc), and the ration of taxes on income, profits, and capital gains is higher by 10%.

Table 1. - Tax rate in Switzerland and Ukraine in 2019 year (Official,2020); (Tax, 2020)

<b>Switzerland</b>	<b>Rate</b>	<b>Ukraine</b>	<b>Rate</b>
1	2	3	4
<u>Standard rate</u> Cars, watches, jewellery, clothing, alcohol, services	7,7 %	<u>Standard rate</u> -supply of goods, the place of delivery of which is located in the customs territory of Ukraine, -import of goods into the customs territory of Ukraine; -export of goods outside the customs territory of Ukraine; -supply of services in international transportation of passengers, luggage, and cargo by rail, road, sea, river, air	20 %
<u>Special rate</u> <u>Overnight stays in hotels incl. breakfast</u>	3,7 %	<u>Special rate</u> <u>Medicines, medical devices and / or medical equipment</u>	7 %
<u>Reduced rate</u> <u>Foodstuffs, books, newspapers, medicines, other everyday consumer goods</u>	2,5 %	=	-
<u>“Zero” rate</u> <u>Exports; supplies of goods and services to airlines</u>	0 %	<u>“Zero” rate</u> <u>-operations for export of goods outside the customs territory of Ukraine in the customs regime;</u> <u>-supply of goods for refueling or securing ships, aircrafts, spacecraft, space launch vehicles, or satellites on Earth</u> <u>-supply of goods for refueling or providing ground military transport or other special contingent of the Armed Forces of Ukraine</u> <u>-etc.</u>	0 %

In all countries around the world, governments` expenditures correspond to the revenues, in the amount of taxes collected. If budget deficits occur in planning, the government, when introducing new taxes, fees, and payments, should account for the potential to possess a negative impact, first and foremost, on the general public and entrepreneurs (Nikolova,2020). As a result, for Ukraine it would be more appropriate to use the Swiss experience discussed above in the process of reforming system of taxation, then establish new kinds of taxes.

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## **PROVIDE MARKETING SUPPORT FOR SUSTAINABLE DEVELOPMENT IN THE CONDITIONS OF GLOBAL CHALLENGES**

*Maryna Lytvyn, Associate Professor  
Serhii Kasian Associate Professor*

*Dnipro University of Technology, Dnipro, Ukraine*

Today's challenges to sustainable development must take into account some marketing international support. In the first half of XXI century information role in life of society is very big. Learning world around, people constantly deal with information. Information helps the person to estimate correctly occurring events, to make the considered decision, to find the most successful option of the actions. In modern conditions of big dynamism, uncertainty, oligopoly nature of the competition and the structure of oligarchic capital in Ukraine for achievement of considerable effective management of the enterprises requires complex introduction of control systems of quality of goods and services. In this case it's very fine to introduce in Ukrainian practices of business the systems of management quality ISO 9001, industry standards ISO/ TS 16949, also in the enterprises of systems of management quality of environment (ISO 14001). Nowadays scientists research the mechanism of interactive formation of flows of marketing values of the high-tech enterprises. It is defined specifics of management of quality, communication providing flows of consumer value on the Internet.

Professors of National University of Ukraine "Lvivska Politechnika" Eugen Krykavsky, Natalia Chukhraj analyze the relation "price – quality" which size they suggest to measure by means of change of remuneration at a certain quality or ranges of change of quality at constancy of the price. Thus scientists understand integration of advantages and expenses of a subjective and objective type as quality of good (Krikavskiy, E.V., 2004).

The systematic study of the current market for industrial products & services for the marketing chain „production – delivery to processing – processing – sale” Ukrainian scientists has been done. It's allow to discover the current state of systems of management quality, supply and demand, prices, market conditions, assessment of its segmentation and competitiveness.

To investigate activity of private joint-stock company with foreign investments "The Dnipro Oil Extraction Plant". The enterprise is the participant of the international group of companies BUNGE & specializes on processing of seeds of sunflower and production of vegetable oil. The main product of production – the refined deodorized packaged TM "Olejna" sunflower oil. The enterprise is the leader

in the segment of the market and realizes production to Belarus, Moldova, Uzbekistan, Armenia, Georgia, Baltic (The Dnipro Oil Extraction Plant, 2020).

At The Dnipro Oil Extraction Plant it is developed and introduced, and in July, 2001 the system of management quality on compliance to the international ISO 9001:2000 standard is successfully certified. It is very positive that in plant the systems management of environment created according to requirements of the international ISO 14001:2004 standard constantly are developed and introduce. It should be noted that at the enterprise introduce in an integrated approach the system of management of quality of carrying out researches into laboratories according to the international ISO/IEC 17025:2005 standard (General requirements to an assessment of competence of test laboratories) (Ukraine Today: A Directory of Leading Ukrainian Enterprises, 2020). Therefore the enterprise in the conditions of the difficult economic relations and a political situation in Ukraine has a trust in the buyers for high quality of production.

In present conditions investment attractive type of economic activity of the enterprises of the food industry of Ukraine is production of mineral waters. We as a result of research it is established that it is connected with the underestimated standards of payment for special use of mineral waters, almost elastic demand for this type of production, created a sale network. We revealed a complex of factors which negatively influence an formation of quality of mineral waters in Ukraine: high level of wear of fixed assets, high level of energy intensity of production.

After the 2007-09 financial crisis, the imbalances and risks pervading the global economy were exacerbated by policy mistakes. And now the risks are growing even more acute. Unfortunately, even if the Greater Recession leads to a lackluster U-shaped recovery this year, an L-shaped “Greater Depression” will follow later in this decade, owing to ominous and risky trends (Jackson, L., 2020):

☐ The debts and defaults. The policy response to the COVID-19 crisis entails a massive increase in fiscal deficits – on the order of 10% of GDP or more – at a time when public debt levels in many countries were already high, if not unsustainable.

☐ The growing risk of deflation. In addition to causing a deep recession, the crisis is also creating a massive slack in goods (unused machines and capacity) and labor markets (mass unemployment), as well as driving a price collapse in commodities such as oil and industrial metals. That makes debt deflation likely, increasing the risk of insolvency.

☐ The currency debasement. As central banks try to fight deflation and head off the risk of surging interest rates, monetary policies will become even more unconventional and far-reaching. In the short run, governments will need to run monetized fiscal deficits to avoid depression and deflation.

❑ The broader digital disruption of the economy. With millions of people losing their jobs or working and earning less, the income and wealth gaps of the twenty-first-century economy will widen further.

❑ The environmental disruption. Which, as the COVID-19 crisis has shown, can wreak far more economic havoc than a financial crisis. Recurring epidemics (HIV since the 1980s, SARS in 2003, H1N1 in 2009, MERS in 2011, Ebola in 2014-16) are, like climate change, essentially man-made disasters, born of poor health and sanitary standards, the abuse of natural systems, and the growing interconnectivity of a globalized world (Jackson, L., 2020).

In the modern dynamic and turbulent economic environment in Ukraine it is necessary to give importance to anti-recessionary management on the basis of system formation of quality of production and services at the enterprises. On the basis of the analysis in this report it is established that development of the Ukrainian enterprises is slowed down by an aggravation of the crisis phenomena and increase of probability of potential threats and dangers. In our opinion, to increase competitiveness of the enterprises and their production in the Ukrainian conditions is allowed by introduction of control systems of quality of goods and services ISO 9001, ISO/ TS 16949, quality managements of environment ISO 14001. The mechanisms of improving the system of management of quality and increasing the efficiency of Ukrainian enterprises, involving the use of strategic management and budgeting tools allow to improve the efficiency of enterprises.

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## **ROLE OF IMF IN INTERNATIONAL CURRENCY-CREDIT RELATIONS REGULATION**

**Petrushenko Yuriy, PhD**  
**Buival Aleksandra, student**  
Sumy State University, Ukraine

Development of modern international economic relations and rapid globalization require up-to-date and improved strategy for the cooperation of governments, and relations between public and private sectors of the economy. Despite this, such cooperation conceals certain threats, which may be manifested as problems that will appear in local markets and only then penetrate into the world markets. In order to prevent the occurrence of such cases, there were created organizations operating at international and regional levels. One of such influential organizations is the International Monetary Fund.

Due to cooperation with many countries (currently they are 189 countries) that the IMF's influence is demonstrated in almost every civilized country in the world. The purpose of the fund is to regulate monetary relations and provide financial support to countries in the event of difficulties related to the balance of payments deficit. The IMF demonstrates its activities by providing short- and medium-term loans to its members. The International Monetary Fund has provided financial support to almost 80% of its member countries over its lifetime. Funding volumes and goals have been constantly changing. At the beginning of its activities, the IMF was engaged in solving trade balance problems, mainly only in developed countries. Today the Fund plays a leading role in supporting global financial stability in the world (The International Monetary Fund).

The requirements imposed by the International Monetary Fund on its borrowers are advisory. But more often they are mandatory requirements without which no tranches will be provided.

While development banks lend to countries on various projects, the International Monetary Fund lends its resources to countries that have got foreign currency deficit in order to adjust their economic policies.

Since the beginning of 2015, in the process of raising funds to support uninterrupted preferential lending to poorer and more vulnerable member states, the IMF has mobilized 11.4 billion SDRs, which were new credit resources for the Trust

Fund. The aim was to reduce poverty, which exceeded the planned initial volume of SDR on 11 billion (IMF Annual Report 2019).

Member States	Date of implementation	Amount approved
<b>NEW THREE-YEAR AGREEMENTS WITHIN THE EXTENDED CREDIT MECHANISM</b>		
Sierra Leone	November 30, 2018	124,4
<b>Total</b>		<b>124,4</b>
<b>INCREASING ACCESS TO ARRANGEMENTS WITHIN THE EXTENDED CREDIT MECHANISM</b>		
Guinea-Bissau	June 1, 2018	5,7
Niger	December 10, 2018	19,7
<b>Total</b>		<b>25,4</b>
<b>NEW RAPID CREDIT FACILITY</b>		
Mozambique	April 19, 2019	85,2
<b>Total</b>		<b>85,2</b>
<b>Result</b>		<b>235,1</b>

Table 1. Approved agreements on access to poverty reduction and promoting of economic growth in 2019 (SDR million) through the Trust Fund (Gerchikova, I.M., 2001).

With regard to IMF cooperation with Ukraine, it is usually necessary to treat the tranches provided by the International Monetary Fund more responsible and reduce them. But so far, we need credits. Ukraine has to set up and modernize its own production of goods and services. Living has to be at the expense of these spheres of economy, not in debt, and not on interest on these debts.

Oksana Markarova, the Minister of Finance of Ukraine, stated: "I have a plan to finish cooperation between Ukraine and the IMF in 2023, so that there will not be a question when we can get a new tranche, but would be able to provide for themselves" (Ukraine's cooperation with the IMF).

We hope that Ukraine will reach a new level. It will be able to become a powerful and stable state that will no longer need tranches for its good existence.

Of course, it is worth cooperating, but the stronger our economy is the better conditions we can create for ourselves. And to live only with tranches from the International Monetary Fund is not worth it.

Having analyzed the financial performance of the International Monetary Fund over the last 20 years, we can conclude that the Fund has a flexible system of instruments to support its members. Each of its tools has both advantages and disadvantages. Therefore, they should be considered as a whole, in the process of achieving the goals.

There are now both negative and positive changes in the economies of countries that have cooperated with the International Monetary Fund. Negative examples are low-income member states' debt-increasing processes. This means that it is not advisable to evaluate the impact of the International Monetary Fund on the world economy completely, or vice versa.

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## CURRENT TRENDS IN THE GLOBAL CONSULTING SERVICES MARKET

*Petrushenko Yuriy, PhD*

*Koldovska Mariya, student*

*Student, Sumy State University, Ukraine*

Institutionalization is one of the major current trends in the global consulting services market. Non-regulation of consulting activity, lack of clear standards and management strategies consulting business, non-systematic approach to structuring industry and the asymmetry of consulting information - the main problematic aspects of the development of this sector of the economy that contributed to the intensification institutional activity. With the emergence of a global market for consulting services, there was an objective need for institutes that would organized, regulated and promoted the effectiveness of numerous international consulting firms. The main task of the professional associations and institutes of counseling are providing and guaranteeing high quality consulting services and professional qualifications of its members (Березной, 2001). Training of consultants on work with clients, creation of unique products, own methodology which they market, build a reputation, which for any client is the paramount factor in choosing a consulting company. Management consultants provide advice and assistance to organizations on strategic and organizational planning; financial planning and budgeting; marketing objectives and policies; human resource policies, practices and planning; production scheduling; and control planning (Global, 2020).

The characteristic trend of the current stage of market development consulting services are intellectual capitalization. The Basic factor of success any consulting company is the retention and development of its most important asset - qualified personnel. Foreign consulting companies attract the best staff, experts management, ensure their continued improvement through continuous skills development and experience, as well as create sufficient incentives to continue working in the organization. All that achieved through the formation of special recruitment systems, motivation and the promotion of staff, complex multi-level systems retraining and advanced training, transformation systems experience in methodology and their own methodology dissemination (the so-called knowledge management systems) and finally, systems, procedures and standards of client work that define corporate identity and corporate culture (Kipping, 2003).

An important trend in the development of the consulting services market has stepped up the close collaboration of consultants with clients who at in some cases

became full participants in the consultation team. Blurring the traditional professional values of the greatest consulting firms that are increasingly focused on profitability and market capitalization, triggered a sort of backlash from their customers. In its most concentrated form, this is reflected in changes in the attitude

of customers to the results of their work companies that have recently changed the configuration of business practices world consulting leaders. If until recently the standard result the work of the consultants was considered a project report with conclusions and nowadays, clients are mostly expecting them to implement the recommendations given and bring them to fruition.

An important consequence of the new focus on tangible results was active efforts of consultants to work closely with client staff who are usually involved in consulting teams as full participant (Берба, 2001).

Over the past years the global consulting market has booked year by year growth, although growth rates differ between the more mature markets and emerging economies. With a total value of around \$250 billion, the global consulting sector is one of the largest and most mature markets within the professional services industry.

An analysis of the past five decades shows that the development of the consultancy industry is closely tied to the developments of the global economy. In times of flourishing economic conditions, organizations enjoy higher revenues and budgets, a setting which paves the way for higher spending on consultants. Vice versa, economic downturns typically sees organizations shrink their spending behaviour, which leads to budget cuts of, among, others, consulting expenditures

Between the 1970s up the 1990s the global consulting market grew every single year, despite the two recession periods (early 1970s and 1973-1975), fueled by high demand for strategic services and operational management. In 2002 the sector for the first time in decades faced a contraction, followed by an even larger downturn between 2009 and 2011, in the slipstream of the global financial crisis.

In 2011 the consulting industry was valued at \$205 billion, and since the market has grown with an average Compound Annual Growth Rate (CAGR) of 4.1% to a value of \$251 billion in 2016. The largest segment is Operations Consulting, which accounts for nearly 30% of the market, followed shortly by the Financial Advisory segment. Strategy Consulting – the most prestigious segment in the industry – represents less than 15% of the market, and is, in terms of size, comparable to the HR Consulting domain. Technology Consulting, also referred to as IT Consulting, holds a 20% share of the overall market. For many years' globalization, consolidation, developments in laws and legislation, efficiency and technology have

acted as the main growth drivers of the global consulting industry. More recently, digital and business model disruption has surfaced as the driving factor behind growth, in particular in the more mature markets. Across the board, the North American consulting market is regarded as the most mature region globally, however, the EMEA region – Europe, the Middle East and Africa – lead in terms of market size, holding a 41% share of the overall consultancy economy. The US is by a distance the largest national consulting market, with Canada taking just a 7% share of the North American market. Asia and Oceania, with Australia as the most important consulting hub, accounts for around 16% of the industry. In terms of growth momentum, Asia Pacific leads the pack, together with other emerging economies, while the EMEA region and North America on average are booking CAGR growth rates of 3.6% (Global, 2017).

Trends and factors of development of the global market consulting services in one way or another related to globalization world economic space. An obvious tendency to increase globalization and institutionalization of consulting services offered by the largest firms does not exclude the possibility of functioning in the market of small and medium-sized specialized companies that are more competitive in the national markets. At the same time, it is stored great potential for growth for the transnational leaders of the world consulting. Their development is increasingly associated with the change of generations information technologies, evolution of marketing technologies, modernization of consultant-client relations, capitalization of intellectual capital. The consequences of globalization processes in the consulting market services is dominated by large transnational consulting companies, increased competition in the market, business reorientation activities of small consulting companies in the field of narrow solutions issues of dynamic national markets aimed at specificity domestic economy.

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## CURRENT TRENDS IN THE GLOBAL TRAVEL SERVICES MARKET

*Petrushenko Yuriy, PhD*

*Opanasenko Yelyzaveta, student*

*Sumy State University, Sumy, Ukraine*

We live in an era of Generation Z, smartphones, the Internet, social networks, webcards and various guides, so there are plenty of options for travel in modern conditions. For the modern tourist the distance no longer becomes a particular obstacle. Technological innovations, communication between people around the world, growing demand for the opening of new horizons are driving the emergence of new projects in the tourist services market.

The purpose of my research is to describe current trends in travel and tourism. Because tourism is now one of the most promising and largest sectors of the world economy, accounting for more than 10% of GDP, according to UNWTO.

In modern conditions, when choosing a place to travel, tourists are increasingly paying attention to the possibilities of self-realization. Especially young people who think that traveling for the purpose of cultural exchange, volunteering or working abroad can see the world, learn something useful and realize themselves. One of the current trends in tourism development in the 21st century, according to World Tourism Organization estimates is the event of tourism. The types of event (event) include: festivals, carnivals, parades, celebrations; conferences, forums, symposia, round tables; educational activities: seminars, trainings, refresher courses; - sports competitions (for example, the Olympic Games); concerts, film screenings, theater productions; anniversaries, weddings, celebrations; business events: exhibitions, fairs, trade shows, presentations, business openings, receptions, events related to the promotion of the brand, etc. (Yermachenko, 2015). This type is a significant part of cultural tourism, focused on visiting a destination at certain times, associated with a particular event in society or a phenomenon of nature that is rarely observed. It includes a number of cultural, sports, ethnographic, exhibition, business tourism activities. But not all of the activities that are carried out should be attributed to it, only those that generate any income and, therefore, can be considered a resource component of the venue. The difference with this tourism is that the purpose of the trip is tied to any event. Feature of tourism events - it is annually replenished with new tours, which from casual pass into the category of regular.

Impressive results from the early 21st century have been achieved thanks to a number of well-known events such as the Anniversary of Christianity, the Rio



Summer Olympic Games, Brazil, the European and World Cups and more. Our country, which is increasingly entering the world economic processes, following the general trend of globalization, should also take a proper place in this process. There are measures that are traditionally associated with a particular country. So Italy is known for its carnivals, Holland is a flower festival and the Queen's birthday, Brazil is a carnival in Rio de Janeiro, Thailand - Happy New Year. To Germany it is worth going to Oktoberfest, to Vienna - to music concerts (Pulido-Fernández, 2015). The main world centers of this tourism are concentrated in Europe (58%) (Fig. 1).

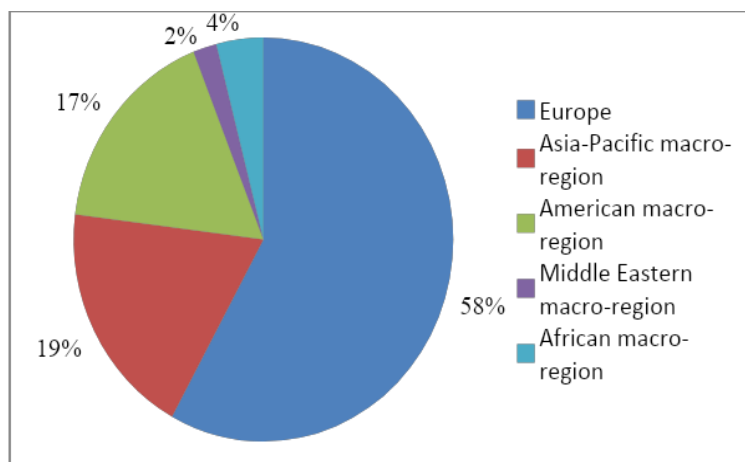


Fig.1 Share of tourist income of tourist macro-regions of the world, %

This is explained by the availability of all kinds of recreational resources, stable economic and political situation, the availability of developed infrastructure and favorable geographical location. However, holidays in Europe are more expensive than in other macro-regions, which has a negative impact on the development of tourism in the region. However, the long tourist season, the availability of rich recreational resources, the proximity of the developed European countries have a positive impact on the development of tourism in the region and make up a large part of its tourism and recreational potential. The Asia Pacific macro-region is second, with a 19% share of tourist arrivals. It is explained by the presence of unique and exotic types of recreational resources. And all this against the backdrop of lower prices and lower costs than, for example, Europe or America. However, the unstable political situation, frequent cases of natural disasters such as earthquakes, tsunamis, floods, have a negative impact on the development of this macro-region and on the number of tourist arrivals. The third position is occupied by the American macro-

region. The lower share of tourist arrivals in it is explained not by the decrease in the tourist attractiveness of America, but by the faster pace of development of the tourism industry in other macro-regions. This region is characterized by the presence of most types of recreational resources, developed infrastructure. However, the unstable political situation in the countries of South America, natural disasters in the United States (hurricanes, floods) contribute to the decline in the share of tourist arrivals. Africa is the cheapest holiday destination in the world, with abundant natural recreational resources. However, underdeveloped infrastructure, low level of tourist service, lack of significant cultural and historical recreational resources have a negative impact on the development of the tourism industry. The Middle East tourist macroregion is characterized by the lowest share of tourist arrivals, which is 2%. This is explained by the unstable political situation in the region, the lack of developed tourism infrastructure (The official, 2020).

In terms of length of travel, one can observe a tendency for tourists to choose short trips, including on weekends. Post-crisis consciousness influenced the formation of "easy to lift" people who spend the weekend in Europe. It is obvious that now travelers are more carefully approaching the route of their trips, apparently guided by the principle of "less, but better and more often".

Modern tourists pay great attention to environmental protection, trying to reduce the negative impact on it. Due to this, eco-tourism is especially popular. Reducing carbon emissions, women-only travel, sound and forest therapy are trending topics. It is fashionable to be healthy in the world. Therefore, this trend has shifted to tourism. There is even a separate segment of tourists, for which there is already the abbreviation LOHAS (Lifestyles Of Health And Sustainability). They love green tourism, they care about the environment. They choose to pay for eco-friendly transportation, to live in estates, to eat farm produce.

Studying the main world trends in tourism development will help to use the world experience to build a domestic tourism market. In the long run, this will help to improve the tourist image of the country and increase tourist flows.

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## THE TRANSFORMATION OF MODERN MANAGEMENT PARADIGM FOR FUEL AND ENERGY COMPLEX ENTERPRISES

*Olena Skarupa, Doctor, Associate professor*  
*Kateryna Vlasenko, student*  
*Sumy State University, Sumy, Ukraine*

In the context of modern economic development, fuel and energy enterprises should be more flexible, and move to clear and effective management processes, the implementation of which makes it possible to form a whole range of necessary measures to solve environmental and economic problems.

A review of economic literature has shown that today there is no effective economic management mechanism in the fuel and energy complex. Thus, the relevance of the study is due to the need to develop an economic management mechanism for the fuel and energy complex and an appropriate approach to improve sustainable work in the environment of their functioning, and to ensure the quality of the environment.

The functioning of the fuel and energy complex, as well as any forming link of the Ukrainian economy, requires special attention to all spheres of its management. Therefore, in our opinion, in order to take into account the environmentally-oriented factor in the work of the fuel and energy complex, it is necessary to form and develop a management approach that would provide for the improvement not only of the technical condition of enterprises, but also of their management system, including the need to adapt the fuel and energy complex to the conditions of a "green" economy ...

Therefore, to assess the effective aspects of activities, opportunities and determine the external and internal factors of adaptation of the fuel and energy complex to the conditions of the "green" economy, we use the method of economic analysis - SWOT analysis, the results of which will be the main initial data for the development of an adaptive approach to solving the ecological and economic problems of the fuel and energy complex and in the formation of priority tasks and goals of measures for its modernization.

The research and literature review made it possible to form the main factors of influence on the formation of the fuel and energy complex in the direction of implementing the course towards a "green" economy:

1. Main strengths: - Diversity of the mineral resource base; - Favorable economic and geographical position and significant transit potential; - development of deposits of mineral resources, subject to the use of environmentally friendly mining technologies; - use of the mineral resource base of technogenic raw materials; -

ensuring a close relationship of reforming the complex system with the improvement of other components of the economic mechanism.

2. Main weaknesses: - uneven provision of the territory with natural resources; - low technological level of the fuel and energy complex enterprises and their insufficient competitiveness; - weak ties in the power-region-enterprise system, insufficient level of state support; - significant volumes of ash and slag waste, unsolved problems of their storage and processing; - a high level of deterioration and low efficiency in the use of fixed assets of enterprises in the fuel and energy complex; - the rates of technical and technological modernization are low; - the need to invest large investment funds in the development of the fuel and energy complex; - maintaining a strong dependence of the country's economy on energy imports.

3. Main opportunities: - formation of a positive level of innovation and investment activities of the fuel and energy complex; - strengthening the material and technical base of the complex; - energy saving and increasing the efficiency of using energy sources; - ensuring the effectiveness of decision-making in the activities of the entire enterprise and the ability to adequately assess their capabilities.

4. Main threats: - slow pace and quality of modernization of fuel and energy enterprises; - insufficient level of environmental education and upbringing of the population; - a decrease in the population of the country, which can become a limitation for the development, for example, of a labor-intensive sector of the complex - the coal industry; - a high level of environmental pollution.

The conducted research allows us to draw the following conclusions: given the weaknesses and possible threats in the fuel and energy complex, it is necessary to increase the competitiveness of enterprises by developing and introducing new production technologies, resource-saving measures, attracting foreign investment, and increasing energy efficiency.

Since today Ukraine is experiencing a new wave of crisis, the situation at most enterprises of the fuel and energy complex is unfavorable, however, given the positive opportunities and strengths in the development of the fuel and energy complex, we can expect the establishment of a positive solution to the environmental and economic problems of the complex.

Thus, with the help of SWOT analysis, the main environmental and economic factors of influence on the formation of the fuel and energy complex were identified, on the basis of which the adaptive approach to the direction of the complex's activities to the concept of the "green" economy will be based, which will allow developing strategic directions for its improvement. The implementation of the SWOT analysis in practice will make it possible to turn the weaknesses of the fuel and energy complex into strengths and eliminate external threats using its capabilities.

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## FINANCIAL PLANNING FOR THE STRATEGIES IMPLEMENTATION OF SUSTAINABLE LOCAL DEVELOPMENT

*Petrushenko Yuriy, PhD*  
*Ponomarenko Oksana, Ph.D. Student*  
*Sumy State University, Ukraine*

On October 18, 2018, the Verkhovna Rada deputies supported the initiative of the Ministry of Finance aimed at implementation medium-term budget planning. According to the adopted bills No. 8043 and No. 8044, the State plans its budget for three years in advance, which will allow to implement systemic reforms, as well as to increase the degree of responsibility of budget managers for the efficiency of their work.

According to the innovations of these bills, starting in 2019, the medium-term “Budget Declaration” was introduced as a strategic planning document defining the budget policy for the next three years instead of the one-year “Main directions of budget policy”. According to the medium-term budget planning tool at the local level, three-year local financial plans have become.

In the Sumy region, the first steps towards the strategic financial planning of local development were taken as part of the research work "Development of scientific and methodological foundations and practical tools for the financial policy of sustainable development of the united territorial communities." In 2019, 2 seminars aimed at improving the quality of budget planning in the territorial communities of Sumy Region were held for local community financiers together with the Sumy Center for Local Government Development.

During the seminars, issues of budgetary regulations, budgeting requests, budget planning features for 2019 under the recommendations of the Ministry of Finance and others were considered. Also, these seminars presented to the participants the necessity and mechanism for implementing the relationship between strategic and budget planning in the activities of the united territorial communities (UTC).

An analysis of the processes of adoption and implementation of UTC budgets in 2017-2018 indicates significant shortcomings in budget planning. Unfortunately, many UTCs took budgets in an “emergency” mode without long-term or even medium-term planning, which leads to poor quality budget planning and, as a result, constant changes to the budget during the year and inefficient usage of budget funds. Besides, even in those UTCs that already have development strategies, they remain

only declarative documents and do not become the basis for prioritizing financing. In the framework of the research work "Development of scientific and methodological foundations and practical tools for the financial policy of sustainable development of the united territorial communities", the necessity of the interconnection between budgeting and strategic plans for the communities development was justified and an algorithm for the dependence of budget and target programs on the goals and priorities of strategic sustainable development was offered.

The proposed algorithm provides:

1. Formation of local targeted programs following the priorities of the UTC Development Strategy and the Sustainable Development Goals.
2. Formation of budget requests following targeted programs consistent with the development strategy.
3. Formation of the annual Program for the socio-economic development of UTC for the purposes, projects, and activities of the local target programs of the planning year.

The lack of interconnection between the strategic development goals and the directions of budget expenditures leads to the fact that the significant part of community income is spent on financing activities that do not correspond to the socio-economic priorities and interests of their residents, thus scattering the resource and restricting citizens' access to quality budget services. When forming annual budgets, communities need to take into account positions that enable them to realize their development priorities, not only in terms of their own but also in terms of delegated budgetary powers. So, the budget requests of the main managers (and, accordingly, the draft city budget) must be formed taking into account performance indicators necessary for an objective calculation of the degree of achievement of medium-term development goals of the society, which in turn must take into account the goals of sustainable development of the gymnasium.

As a result of the relevant training from budget management, their participants not only understood the need to coordinate strategic and budget planning, but also started this process in 2019. First of all, this concerns those communities that already have approved local development strategies: Berezovskaya OTG, Krasnopilska OTG, Nikolaev OTG, Stepanivska OTG, etc. The first step in this direction was an audit of existing local target programs in accordance with the adopted strategic documents. For each priority of the strategy, there should be one or several target programs, and, conversely, the implementation of target programs adopted in the past, but today do not correspond to the strategic plan of the OTG, should be suspended.



In 2020, based on this pilot experience, communities have already begun to implement a step-by-step algorithm for the implementation of the interconnection between strategic and budget planning, which provides for the implementation of the Sustainable Development Goals in the life of local communities.

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## ADVANTAGES AND DRAWBACKS OF BIOPLASTICS PRODUCTION FOR GREEN ECONOMY

*Vladyslav S. Piven, student*  
*Oleksandr V. Kubatko, Dr.*  
*Leonid H. Melnyk, Dr.*

Sumy State University, Sumy, Ukraine

Statistics on the production of the bioplastics in the world from 1960 to 2018 show that the average annual growth rate was 8.9 %. World production of plastics amounted to 336 million tons in 2018 compared to 323 million tons in 2017 (an increase of 13 million tons in one year), according to data provided by the United Nations. Because plastic materials are commonly used in a variety of applications, problems connected with economics and environment have arisen. As a result, environmentally friendly materials such as bioplastics have been created. Despite many substantial advantages of bioplastics, there is a range of disadvantages, which need to be considered. Therefore, it is important to analyze main advantages and disadvantages of using bioplastic materials.

According to J. Philp, R. Ritchie and K. Guy, bioplastic usage gives a wide range of benefits for various economic entities. Most of them concern ecological, economic and social aspects of bioplastic application. Here are the advantages of using bioplastics.

The significant advantage of bioplastics production is decreased carbon footprint. Bioplastics have a special advantage over oil-based plastics to minimize reliance on limited fossil fuels and to shorten the emissions of greenhouse gas by changing the carbon content of plastic products with bio-based content.

Another advantage is lower energy resources consumption (lower reliance on petroleum). Probable oil shortages have caused a significant concern. Development of bioplastics demands lower level of fossil fuel consumption comparing to conventional plastics. For instance, oil-based polymers have been assessed to have the usage level of approximately 68–132 MJ of fossil fuels per kg of resin produced, comparing to bioplastics below 12MJ per kg.

It is possible to use bioplastics for various end-of-life choices. Recycling in a mechanical way has a positive impact on the greenhouse gas balance (Álvarez-Chávez et al., 2018). Incineration leads to the production of energy, what is

advantageous in the context of environmental sustainability. Conventional plastics incineration leads to emissions of fossil CO<sub>2</sub>, when bioplastics let out natural CO<sub>2</sub>.

Declining the level of waste pollution and increased compostability of biodegradable bioplastics are also advantageous. Around 14% of all existing waste stream are plastic materials. It is approximately 34 million tons of litter annually, just 11% of which are directed on recycling. Others go to dumpsites, where the process of decomposing can take more than 100 years. If facilities have the appropriate equipment for composting to manage biodegradable plastics, it is possible to experience a complete breakdown of the material within 18-36 months (it depends on the particular method used).

When using biodegradable plastics instead of conventional processing materials, less greenhouse gas emissions are released into our planet's atmosphere. We consume around 300 million tons of plastics annually (plastic industry releases around one billion tons of CO<sub>2</sub>, which enter Earth's atmosphere every year. If plastics were fully recycled every year, we would save significant amount of carbon (up to 74%, according to some researchers).

Work creation is also an advantage, oriented on long-term perspective. In the expected global net increase in jobs, bioplastics application was revealed to provide a social benefit. It is projected that the employment sector will remain stable in industry, with the growth coming from jobs, which are going to be generated in agriculture. This growth is not sufficient, expected to be around 35,000 new jobs worldwide by 2025, but remains an opportunity for the bioplastic industry (Melnik et al., 2019).

Bioplastics packaging has better technical characteristics, including:

- Capability of bioplastics to be clearer and more transparent.
- Better printing performance—simply readable image is more likely to be printed on bioplastic.
- A surface texture of high quality. It is possible to create bioplastics to provide a surface texture that is much more favourable than traditional plastics.

However, possible problems might come along with the use of bioplastics. According to G. Davis, J. Song, most obstacles are connected with certain aspects of economic and political life on both micro- and macro levels. Here are the disadvantages of bioplastics application.

Unsustainable land use is a significant drawback of bioplastics production. Extra land is needed to make bioplastics in comparison with the oil-based ones. According

to reports about development of bioplastic market up to 2030, only about 0.2-0.5% of additional land will be required. Though, if land, which is ecologically or socially valuable, is used in unsustainable way, or releases high quantities of stored carbon, this is considered a substantial barrier.

The price of resin and the amount of sales can have a negative impact on bioplastics spread. It has been found that the bioplastics being studied are more expensive to produce and sell than traditional alternatives. For example, polylactic acid (PLA) and cellulose are up to 60% more expensive than the conventional plastics. Polyhydroxyalcanoates (PHL) and starch cost four times as much as the oil-based plastics.

Bioplastics account for approximately 0.8% of the plastics industry now, with the level of production of approximately 2.1 million tons worldwide, much of which is manufactured at low scale (Peelman et al., 2018). It contrasts with 336 million tons of traditional polymers produced in 2018. This is a significant barrier to the application of bioplastics in the context of volume limits, especially about the economic and environmental barriers in the case of cellulose.

Due to the inability of the public to classify products as bioplastic ones, the possibilities for segregation are minimal. Therefore, there is a lack of public understanding of the bioplastic products. It is considered to decline willingness of the consumers to pay for bioplastics. According to the 2013 study, conducted by the European Commission, the total majority of consumers in the European Union do not have awareness about positive environmental effects of bioplastics, their advantages (and disadvantages) over conventional plastics.

There are certain legislative problems, connected with the mechanism of bioplastics production. With more opportunities provided, bioplastics production is expected to rise to around 8 million tons by 2028. Nevertheless, many countries in the world (including Ukraine) still do not have any legislative framework for bioplastic use and management of bioplastic waste, which have a negative impact on the development of bioplastic production sphere.

**Conclusions.** Bioplastics seems to have many advantages in comparison with conventional plastics, including decreased carbon footprint, lower consumption of energy, numerous end-of-life choices, reduction of waste, increased compostability of biodegradable bioplastics, decreasing the level of greenhouse gas emissions, work creation, disposal of agricultural film, better technical characteristics. However, the scale of bioplastics production is still low, so its role in green and sustainable economy as a substitute to conventional plastics is still insignificant. It can be

explained by certain disadvantages of bioplastics production and application, in particular, such as unsustainable land use, the price of resin and the amount of sales, low level of consumers' engagement, legislation problems. Where barriers in bioplastics' implication have been identified, it is important to continue researching in order to evaluate different aspects of bioplastic market.

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## ECONOMIC DECISIONS IN THE BUSINESS ENVIRONMENT

*Sabadash Viktor, Associate professor, PhD (Economics)  
AbulbireTheophiusAyinesone, Master's Program Student  
Sumy State University, Sumy, Ukraine*

A decision is defined by the Cambridge dictionary as a choice that you make about something after thinking about several possibilities. The ability to decide quickly and without pausing because you are not certain (Cambridge, 2020). Decision making is an important process in an organization. It will affect the effectiveness of an organization (Sabadash et al., 2019).

Ghana, a West African country South of Sahara, has been of huge interest to the international community in terms of business opportunities. Current population is about 28 million, with the young (under 25) forming a majority of 57 % of the total population. About 70 % of businesses community in the country are in the informal sector; largely micro, small and medium enterprises. As a lower middle-income Country, Ghana throws out business opportunities which are generated from what is required to grow and develop the economy. Current penetration of technology has made the Ghanaian turf rife for Business.

Ghana ranks 111<sup>th</sup> out of 141 countries in the 2019 World Economic Forum Competitiveness Report (The Global, 2020), outperforming the sub-Saharan Africa region on the majority of all 12 pillars of competitiveness. But the country lags countries in the East Asia and Pacific region.

The private sector is recognized as a critical stakeholder and partner in economic development, by helping people escape poverty through the provision of jobs and income, as well as the availability of necessary goods and services needed to enhance people's standard of living. There are a number of developed private businesses in Ghana which are very profitable. Some of such businesses are Newmont golden ridge limited, Ghana Oil Company, Goldfields Ghana Limited, MTN Group, Coca-Cola Ghana, Vivo energy Ghana, Multipro Limited Ghana, etc. The above-mentioned companies are also key companies operating in international markets.

The economic activities of national and international companies in Ghana are very often the cause of ecological conflicts that pose a serious threat to the Ghanaian ecosystem (Sabadash and Denysenko, 2018). Ecological conflicts related to the extraction and transportation of oil, the production of mineral resources and minerals mainly. Ecological conflicts are a catalyst for social contradictions in the country as

well. Therefore, the quality of environmental and production and technological decisions made by national and international companies in the business environment should be significantly improved.

The working age group in Ghana includes all persons 15 years and older. More than half (67.9 %) of the working age population are in employment. The private sector serves as a long-term source of jobs and incomes for most people worldwide. A major foundation upon which the development of the private sector is supported is its ability to generate decent jobs and higher incomes. It is estimated that 8.5 million persons are engaged in the private sector.

A company's culture is its 'personality.' It conveys valuable things about beliefs, brand, and desires, and it covers a wide range of different elements and aspects (Sabadash and Marchenko, 2017). However, a company like Coca-Cola has several corporate cultures.

Business is relatively hierarchical. Managers do not seek a consensus before making decisions. In fact, decisions are often made at the top of the company. Managers tell subordinates what they want done and how they expect them to perform the task. Strategic implementation is a key ingredient of modern business. Decision-making strategies set out management techniques, leadership styles, implementation requirements and key factors to be considered for a smooth transition from the decision to pursue a plan to the implementation of it (Eby, 2017).

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## **“GREEN” BUSINESS AS A TOOL OF ECOLOGIZATION OF UKRAINE'S ECONOMY**

*Sabadash Viktor, Associate professor, PhD (Economics)*

*Katya Bohomolova, Student  
Sumy State University, Sumy, Ukraine*

One of the most important issues today is the problem of achieving a balance between social production and the environment. “Green” business is considered a concrete embodiment of adequate coordination of economic, social, and environmental development. Information about the size of the green business in Ukraine is practically absent and very difficult to calculate. First, there are no systems for collecting statistical information on tracking the development of this rapidly evolving innovation sector. Secondly, attempts to investigate the size of the sector are faced with the lack of a proper classification of economic activities. But the main pollutants of the environment are divided into three categories, which include discharges, emissions, and waste generation.

The largest damage to water objects of Ukraine is caused by enterprises of the mining and metallurgical complex and communal economy: the total volume of discharges into water bodies of return water and pollutants was 2080 mln m<sup>3</sup> (2018). The main pollutants (in mln m<sup>3</sup>) of water are Azov steel mine complex (140), PJSC Dniprovsky Steel Plant (71), and PJSC Zaporizhstal (54). The largest enterprises-producers of waste – total pollution is 366 million tons (MT) – are located in four regions: Dnipropetrovsk (30), Donetsk (22), Zaporizhia (9) and Luhansk (6) (ОстанСемерак, 2020).

Destructive environmental behaviour of companies and individuals is the cause of ecological conflicts and contradictions in the business environment and society. Ecological problems and questions of rational use of natural resources are important considerations for shaping national and international environmental policies. The environment aspect must be integrated into development-related decision-making processes aimed to reduce natural resource losses as the main prerequisite for sustainable development. Strategically important environmental resources such as water, land, forest, bio-resources need to be protected. Of similar importance is the need to improve the policy on rational use of nature through economic and legislative instruments and their coordination at the national and international levels.

The application of economic and legislative tools for ecological conflicts resolution could take the following orientation: a) political (inter-state agreement,

arrangements, joint plans/scenarios); b) institutional (specifications, legal and legislative documents, rules, support for “green” business projects); c) technological (norms, standards, limits, new technologies implementation); d) financial and economic (tariffs and non-tariffs measures, re-distribution of financial flows, financial aid, compensation, subsidies); e) trade (licensing, limitation, restrictions); f) innovative and informational (converging levels of social and economic development, exchange of knowledge, experience and skills, ecological education, access to information, propaganda, consultations); g) social and cultural (common environmental interests, improved quality of life, social support) (Sabadash V. and Denysenko P., 2018; СабадашВ. В., 2006; СабадашВ. В., 2007). Nevertheless, Ukraine’s economy has a huge potential for the development of “green” business. The current state of obsolete technologies, the urgent need to reduce the resource and energy dependence of key industries of the country, allow for bold estimates of the potential of green services and technologies in more than €120 billion. Energy-saving / climate change technologies with the projected size are the most significant €199 billion, followed by waste management of €831 million and water treatment equipment from €600 million. Further development of entrepreneurship in Ukraine without sufficient consideration of environmental factors can lead to an even greater burden on the environment. Effective investment and innovation policy in the environmental sector will be an incentive for Ukrainian businesses to carry out environmentally-oriented investments and may intensify the development of the environmental market for goods and services. It is necessary to create an effective system based on the strategically beneficial interaction of natural resources, local authorities, population, and ecologically oriented business.

The main problem of the “green” business is the lack of proper financing. Other obstacles to the development of the green business are the lack of legal frameworks and standards, the lack of compliance with modern system requirements for power systems, the absence of automated systems, ineffective state intervention in the market, that contrary to the tools of state environmental and economic policies. To address these issues, some programs have been developed, such as “Energy Efficiency for 2010-2015”. This program served to reduce Ukraine's dependence on imported energy; contributed to the reduction of consumption of natural gas and natural resources. Later, the Government approved the “Energy Strategy of Ukraine until 2030”. The authors of the program believe that increased efficiency and structural changes in energy use will reduce Ukraine's external dependence from 54.8 % to 11.7 % by 2030.

“Green” energy can significantly reduce the conflict potential of production and consumption processes. High tariffs for “green” electricity, technological problems of the national energy system (energy system balance) and economically unjustified

benefits for “green” projects in Ukraine are risk factors for the development of the “green” energy sector (Сабадаш В. В., 2011). Currently, there is a growing interest among foreign investors. Significant interest is in renewable energy. The latest project is the construction of a 250 MW wind farm in the Kherson region worth over 350 million euros, which will be built by the Norwegian NBT with the support of the European Bank for Reconstruction and Development and the French Total Eren. For Ukraine, this means not only an increase in European investment but also entry into the alternative energy market. There are also Canadian, American, and German companies that have already attracted funding for green projects or are at the stage of structuring finance and construction. An example of “green” business in Ukraine is the “Interpipe Steel”. The steel mill is the largest steelmaking complex for the production of round steel in Eastern Europe. The capacity of the new plant is 1.32 million tons of round steel billets per year (Interpipe Steel, 2020). The plant envisages the replacement of the production of energy-intensive, outdated, environmentally “dirty” hearth for a progressive method of electric melting of steel production. Thus, it provides for an annual increase in payments to the budget and extrabudgetary funds, reduction of natural gas consumption in the Dnipropetrovsk region, reduction of total emissions of harmful substances into the atmosphere.

An introduction of “green” business in Ukraine is an innovative, profitable, and promising area of economic and entrepreneurial activity. At present, the attraction of cash resources for the formation of this type of activity is possible only if the corresponding financial and legal basis at the state level is created, which will form an appropriate interest from the domestic and foreign investors. In order for the development of ecological business in Ukraine to have a positive impact, it is necessary to develop a phased program for its implementation and to form optimal dependence of three elements such as current state – “green” business – innovation. As a result, the green business development in Ukraine will ensure a competitive recovery of domestic enterprises in the world markets.

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## UKRAINIAN NATURAL HONEY TRADE: MARKET DEVELOPMENT

*Olena Skarupa, Doctor, Associate professor*

*Alla Treus, PhD student*

*Sumy State University, Sumy, Ukraine*

Beekeeping plays great role in agriculture sustainable development, first of all, because of pollination services provided by honey bees. However, honey still the main product of beekeeping branch in Ukraine. Last years wholesale prices for honey decreases. It could lead to situation when many small and middle size market players will exit from this branch. As a consequence number of beehives in Ukraine will decrease. In combine with bees mortality because of uncontrolled pesticides using it could lead to heavy decrease of pollinators number in the country and food security threats.

In low GDP countries such as Ukraine, where agriculture forms one of the biggest contributions into national Gross Domestic Product, insect (including honey bees) pollinated crops occupy a big proportion of fields area (Breeze, 2014). In Ukraine loss of bees and decreasing of natural honey producers number is strongly connected with pollinators number decrease. As a consequences of such situation agriculture contribution into GDP could go down too.

Today big demand for pollinators observed in the country. However deficit of pollination services increases and demand satisfies supply by only 49% now (Михайлова, Гриценко, 2018).

Honey producers survey that were held in 2018 shows honey production is the most popular business activity among Ukrainian beekeepers, and more than 91% of them involved in this type of production. Only 6,25% get revenue from pollination services providing (Shkarupa, Treus, 2018). That is why we can use honey production and trade as the main indicator of beekeeping development in Ukraine.



**Table 1. Honey trade in Ukraine 2011-2019 (Composed by authors on base of State Fiscal Service of Ukraine data)**

Year	Import		Export	
	Value (1000 USD)	Volume (metrictonnes)	Value (1000 USD)	Volume (metrictonnes)
2011	16	2	27821	9874
2012	236	23	31113	13338
2013	89	22	52972	21674
2014	248	53	93410	36336
2015	98	17	84325	36013
2016	309	118	97257	56968
2017	160	57	133752	67786
2018	63	21	97984	49366
2019*	58	22	90745	49739

\*Datafor 11 months

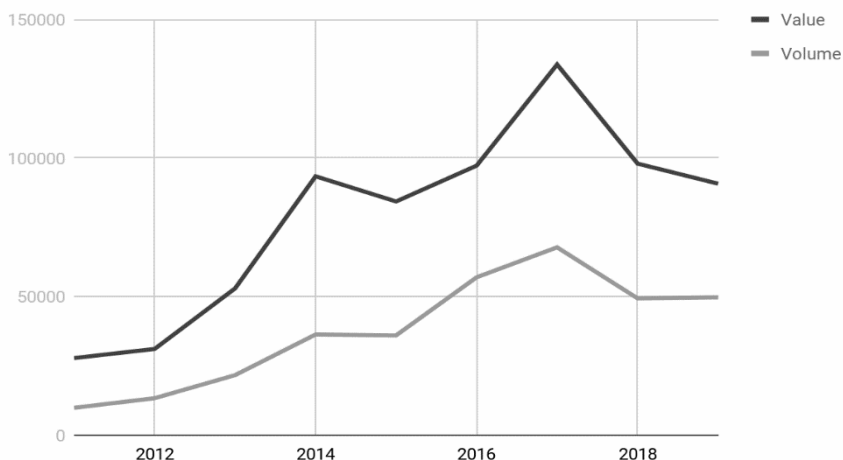
To observe how the situation in this brunch developing now we made market analysis of natural producer activity in Ukraine. There is a noticeable tendency to decrease the production of honey with the growth of its exports. According to Ukrainian researchers, in the near future, honey production will stimulate growth or decline in exports of this product (Михайлова, Гриценко, 2018).

Amount of export after great increasing till 2017 decrised in 2018 and in 2019 (Table 1).

Trade wars and protectionism influenced into Ukraine honey export too. The list of main importers changed in 2019. Almost 10 years US was one of the biggest

consumers of Ukrainian natural honey. However, this country went out from the list of main importers in 2019. Top-3 consumers of Ukraine natural honey was Germany (22,86% of total amount), Poland (20,83%), Belgium (11,78%).

Last years volume of natural honey export from Ukraine were stable. However, prices declined (Figure 1). In such situation combined with increasing aggressive pesticide using and bees mortality beekeeping in Ukraine became a low profit business. It could lead to bankruptcy of small producers, decreasing of beehives number in the country and increasing deficit of pollination supply.



**Figure 1. Natural honey export from Ukraine 2011-2019 (Composed by authors on base of State Fiscal Service of Ukraine data)**

To avoid food security strength due to pollinators deficit list of measures should be implemented. Branch of beekeeping in Ukraine needs government support program implementation and changes in legislative regulation of pesticide using.

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## DEPENDENCE OF CONSUMPTION AND EXPORT OF MEAT FROM WELFARE IN THE COUNTRY

*Uvarov Andrew Student  
Petrushenko Yuriy, PhD  
Sumy State University, Sumy, Ukraine*

The international community considers Ukraine primarily as an agrarian country with significant potential for the development of the export of grain, food, and other agricultural products in the long term.

Given the projections of population growth on the planet, the issue of the food supply is an acute issue. "The World Population Prospects 2019: Highlights", estimates that the next 30 years will see the global population add an extra 2 billion people to today's figure of 7.7 billion, and, by the end of the century, the planet will have to sustain around 11 billion. The main source of protein in human nutrition is meat and meat products of various kinds.

Due to its climatic location, Ukraine has great potential for growing grain. They are the main component of feed and animal feed. This is a driving factor in the development of the industry of growing livestock and poultry and meat and dairy products.

Let us analyze the statistics of the export/import of meat in the Ukrainian market. There is an obvious trend of falling imports and export growth.

Main reasons:

- The active development of Ukrainian poultry as a profitable business for investors. Chicken meat is one of the most widely consumed food products in the world, which is due primarily to a reasonable cost. Price formation is explained by the efficiency of broiler production in the context of the narrow specialization of large poultry farms with a quick return on investment.

- Volumes of meat consumption in the domestic market are limited and are regulated by low purchasing power. Increased production frees up additional resources for export.

- Devaluation of the national currency makes export more attractive for producers.

According to the results of 2019, Ukraine exported a record volume of meat. The export growth was mainly influenced by the chicken segment.

*Balance of supply and demand for meat and meat products in Ukraine.* In January-March 2020, Ukraine produced 617.8 thousand tons of meat of all types, which is 20.1 thousand tons more than in the corresponding period last year. At the same time, agricultural enterprises increased their meat production by 6.5%, while in households it decreased by 2.9%. Poultry meat production in Ukraine increased by 6.9%, beef and veal production decreased by 2.5%, pork production decreased by 0.7%.

According to statistics, as of April 1, 2020, compared to the corresponding date of the previous year, the number of cattle decreased by 7.2% or 262.4 thousand heads (up to 3366.6 thousand goals), the number of pigs decreased by 6.2% or 381.2 thousand goals (up to 5786.8 thousand goals). The number of birds decreased by 2.0% or 4196.9 thousand heads (up to 200601.1 thousand goals). Overall, in January-March 2020 Ukraine exported 37635 thousand tonnes of poultry meat and edible offal. In monetary terms, exports reached \$ 54492 thousand since the beginning of 2020. The main buyers of domestic meat and poultry by-products this year are UAE, Saudi Arabia, the Netherlands, and others.

In the three months of 2020, Ukraine produced 617,8 thousand. tons of meat of all kinds in slaughter weight, which is 20.1 thousand tons more than in the same period last year.

**Table 1. Export-import of poultry products according to the State tax service of Ukraine**

<u>Product Name</u>	<u>Import Value, Thousand US</u>	<u>Imports Net, Weight Tons</u>	<u>Export Value, Thousand, US</u>	<u>Exports Net Weight, Tons</u>	<u>Changes in Import by February 2020</u>	<u>Change in Export by February 2020</u>	<u>Change in Export by March 2019</u>
<b>March</b>							
<u>Meat and edible offal of poultry (0207)</u>	3166	7588	54492	37635	122,5%	30,2%	-6,0%
<u>Eggs in the shell (0407), million pieces</u>	945	4,6	5040	112,661	34,0%	-19,8%	-53,0%
<u>Eggs without shell (0408)</u>	35	7	980	406	-	-36,0%	-39,5%
<u>Albums; albuminates (3502)</u>	338	53	220	49	-19,7%	14,0%	21,0%

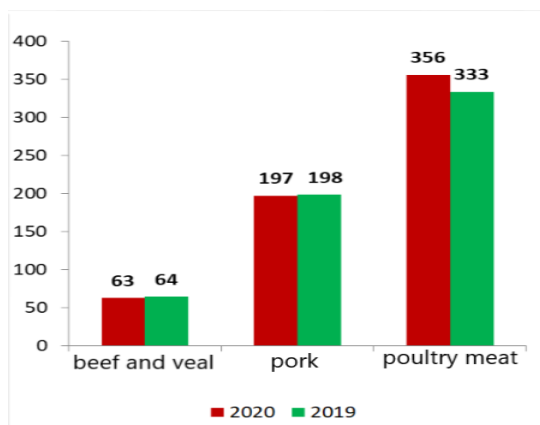
Meat production of all kinds increased by 6.5% compared to 2019 and amounted to 423.7 thousand tons. Households reduced production by 2.9% and produced 194.1 thousand tons. The total structure of meat production by industrial enterprises is 68.6%.

We can make a conclusion from the presented analytics :

- the development of meat production is a significant component of the state's food security.

- production of meat in the volumes not smaller than the volumes of domestic consumption is a guarantee of the state in a stable supply of the basic kind of food of the population of the country and ensures independence of the state from external sources of food.

- chicken production in low-income countries is a priority in the area of cultivation, as it reduces the problem of economic availability of food to the most vulnerable, poor people.



**Figure 1. Meat exports in 2019 and 2020**

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## FEATURES OF APPLICATION OF KAIZEN AND TOTAL QUALITY MANAGEMENT (TQM) APPROACHES IN QUALITY MANAGEMENT AT ENTERPRISES

*Mayboroda T.M.*, PhD  
student *Lysak D.O.*,  
*Sumy State University, Ukraine*

Today in Ukraine, as well as all over the world, Keizen's philosophy and practice is becoming more widespread among representatives of Ukrainian business, public organizations, public administration bodies, and local self-government. Kaizen is a Japanese philosophy, the main idea of which is constant continuous improvement, encouragement of improvements for existing processes in the enterprise, as well as focusing on teamwork. The importance of this approach can be expressed in the fact that Kaizen can be used in any field. It provides customer focus, full quality control, improvement, productivity and new product development. Particular attention is paid to automation of production, the use of robots, the system "Kanban" (Just-in-time) and the desire to achieve defect-free production.

Kaizen is carried out in a certain sequence:

1. Creating a change plan for those processes that are important;
2. Making changes on a small scale;
3. Observation of results;
4. Evaluation of the result and its analysis.

The basic foundations of Kaizen are [1, p.37]:

- Homework (visual management, ie taking care of one's own workplace);
- Waste disposal (involves the use of a supervisor);
- Standardization (emphasis on importance)

The 5S system is used for housekeeping:

- Sort (organization, use only necessary);
- Straighten (workplace optimization, availability of all tools);
- Sweep (support for attractive appearance);
- Sanitize (check the agenda);
- Sustain (self-discipline).

The advantages of using the 5S system are that it provides a safe and favorable working environment, frees up space by eliminating unnecessary, which reduces the time to find the necessary tools, reduces physical activity, increases morale and motivation of employees and most importantly, creates a sense of belonging and love for work. .

TQM is part of Kaizen's philosophy and, in a general sense, organizes its activities, involving everyone in the company - managers and employees to make a systematic and integrated effort to increase productivity at every level.

TQM focuses on the satisfaction of internal and external consumers, focusing on continuous process improvement instead of compliance with standards, includes all functional units, not just quality control, and motivates employees to be the driving force of improvement [1, p.39].

TQM can be generalized as a management system of a customer-oriented organization that involves all employees in continuous improvement. It uses strategy, organizational data and effective communication to integrate the discipline of quality into the culture and activities of the enterprise.

Using TQM at the enterprise:

- provides adaptability to changes in the internal and external environment;
- strengthens competitive positions;
- reduces costs and stimulates their management;
- reduces the amount of defects and waste;
- increases customer loyalty;
- improves the morale of employees by improving occupational safety [2, p.2].

The implementation of these approaches in the enterprise may be associated with some difficulties:

- approaches require a change in the culture of the enterprise;
- clear planning, timeframes and resources for implementation are needed;
- decisions made are difficult to correct quickly if necessary;
- rejection of creativity as opposed to standardization;
- quality is expensive;
- It takes years to see the real result.

In the 1990s, the Keizen Institute, Keizen Club and other organizations began to exist in Ukraine, disseminating the philosophy and tools of its implementation in Ukrainian enterprises, conducting training and helping enterprises to work better and more efficiently within their organizations.

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