BUSINESS ENVIRONMENT OF UKRAINE:
THEORETICAL CONCEPTS
OF INNOVATIVE DEVELOPMENT

The article attempts to identify and substantiate the factors of possible innovative development of the business environment and the financial-economic system of the national economy in Ukraine in order to detect the prospects of participation in the global innovation process. This scientific work has an impact on the field of business efficiency assessment. The research outlined a number of indicators; various methods and measurement frameworks for measuring innovation processes.

Keywords: competitiveness index, strategic priorities, innovations, global economy, investments.

Background. The single global market formation, the creation of a dynamic competitive business environment, and the desire to succeed in the competition require the study of theoretical concepts of innovative development of the business environment and the financial and economic system of the national economy. The solution to this problem is closely linked to the use of powerful information technology coupled with the concept of innovation development. Theoretical concepts formation of innovation development requires additional research. Taking into account the nonlinearity of the competitive environment development, it is necessary to study the nature of the present business environment, a deep rethinking of the essence and the driving forces of the construction and transformation
of financial management systems of national economy. Unconventional, though important, transformations in the national economy did not automatically lead to the creation of an effective competitive business environment and did not encourage the competitiveness of economic entities, including through technological and managerial innovations. Innovative development of the national economy depends on a number of interconnected factors of the business environment. The threat to Ukraine is not only the low competitiveness of products, business entities, individual industries and the national economy as a whole, but also probability of separation from the leading countries due to the low ability of the economy to innovate and the increasing incompatibility of technologies. On the other hand, globalization determines the specificity of competition in the innovation market. The need for harmonization of innovative development factors of the business environment allows emphasizing the relevance of the research topic and search for solutions to the problem in combination of theoretical and applied aspects.

**Analysis of recent research and publications.** The attention of economists to the problems of innovation development has intensified, which is explained not only by world economic tendencies, but also by purely regional economic problems. Thus, the problems of regional development were studied by scientists A. Antokhov, A. Kuklin, I. Korobkov, P. Ogorodnikov, G. Zaloznaya, A. Borovsky, S. Prokhorchuk, Yu. Shipulina, K. Kostik, M. Batuo, K. Mlambo, S. Asongu, J Inekwe, Y. Jin, M. Valenzuela, D. Kim, J. Yu, M. Hassan, L. Kozubikova, A. Zoubkova, M. Lahovnik, L. Breznik, N. Milovic, M. Jocovic, G. Ohanyan, A. Andronicanu [1–12]. Most of the scientific works in this area tend to study existing approaches to innovative development of different regions at the level of the global economy, which provides an opportunity to analyze successful experience and formulate certain principles of regional innovation development, but the issues of innovative development of the business environment in the vector of the concept of sustainable development.

For example, the research of O. Zizlavsky [13] is based on modern knowledge in the field of innovation management, as well as on the specific conditions of the modern business environment. He summarizes the management and measurement of the effectiveness of the innovation process. The proposed methodology identifies and highlights potentially problematic areas and shows managers everything they need to take into account when managing innovation.

O. Mamedov, I. Movchan, O. Ishchenko-Padukova, M. Grabowska [14] write that modern society adheres to and pursues three main tendencies: sustainable economic development, innovative mechanisms of behavior and the globalization of national economies. All other trends can be classified into these three main trends. Their results prove an objective trajectory of economic development of all countries and demonstrate the intellectual and predictive power of economic science. The traditional economy is the first and
last epoch, when traditions have the highest priority in everything. Therefore, the development of traditional economies is limited to the development of traditions and is represented in this development. The traditional economy is characterized by a primitive social and administrative organization. When it comes to the modern economy it becomes apparent that all the contradictions it exhibits tend to become purely social between different groups of economic agents or participants in production and distribution.

M. Danlami, N. Loganathan, D. Streimikiene, A. Mardani, A. Golam Hassan [15] argue that the goal of each country is to achieve sustainable economic growth that will lead to economic development in the long run, and many sectors of the economy will contribute to the growth of the nation. However, it is difficult to find out whether financial development leads to economic growth in the long run or vice versa. The results show the positive effect of financial liberalization on growth potential. The findings showed that trade openness did not have a significant contribution to the growth of production, and financial instability significantly slowed down growth. Gross accumulation and money supply have less impact on growth. Therefore, the authors recommend that active measures be taken to support economic growth in the country by increasing productivity, promoting a culture of savings and saving resources to promote capital accumulation. Loans should be effectively allocated for investment prosperity. Proper supervision of all financial activities should help to avoid possible difficulties in the financial system.

A. Kuklin, I. Korobkov [2] write that the use of the index of well-being of the individual and the territory of residence as a valuation metric is permissible not only for comparative assessment of the socio-economic situation in the regions, but also for forecasting the dynamics of their development with a small temporary horizon. The problem of planning the economic development of the regions is important and remains constantly debated. Against the backdrop of the economic crisis and exacerbation of the foreign policy situation, the formation of an effective long-term development strategy at the regional level seems to be a very difficult task.

P. Ogorodnikov, G. Zaloznaya, A. Borovsky [3] conducted a formal description of support decision-making processes on the issues of sustainable business development and integrated security systems, as well as factors and constraints are taken into account; the model of substantiation of requirements to the level of protection of the enterprise is developed. Along with the research that has already been carried out, the problem of constructing and using an approach based on identifying the interaction of the business environment and innovation development is not sufficiently highlighted in scientific sources, and the systematization of theoretical developments in this field shows that in modern scientific literature there is not a sufficient number effective macroeconomic research that would become the basis for the theoretical basis of the concept of innovative development of the business environment and the financial and economic system of the national economy.
The aim of the research is to identify and justify the factors of possible innovative development of the business environment and the financial and economic system of the national economy of Ukraine in order to create the prospects of participation in the global innovation process.

Materials and methods. To achieve the stated goal, the following research methods were used: the systematic approach – when substantiating the hierarchy of the innovative development problem of the business environment; abstract-logical – for theoretical generalizations and formulation of the conclusions of the study; statistical analysis – to assess the impact of factors of innovation development on the competitiveness of Ukraine’s economy. The source of analytical and statistical information is the materials of the State Statistics Committee of Ukraine, the World Economic Forum, the World Bank and own research.

Results. The analysis of the factors of Ukraine’s rating on the index of global competitiveness for 2006–2017 showed a decline in their values, due to the loss of traditional competitive advantages and, consequently, the absence of favorable conditions for competition for domestic business entities in the external and internal markets. The conducted studies allowed us to conclude on the aggravation of the problem of forming a competitive environment, taking into account the simultaneous need to search for non-standard approaches to building an effective business environment. The necessity of constructing innovative principles of business environment development at the macro and microeconomic levels is argued.

Conceptualization of the processes of innovative development of the business environment and the financial and economic system of the national economy of Ukraine required the study and identification of positive and negative factors of influence on innovation development. The results of the study showed a contradictory and multivectoral impact on innovation.

In the framework of the research, we use the following definitions:
- **innovative development** is a continuous process of qualitative changes in order to improve the system on the basis of innovations (creation, application and dissemination of new knowledge, machines, technologies);
- **business environment** – a set of individual economic entities (with their interconnections and relationships) and factors of the environment that affect them;
- **financial and economic system** – is an objective unity of naturally related phenomena and processes of financial and economic life.

In order to identify and justify the factors of possible innovative development of business environment of the national economy in Ukraine, the analysis of the Global Competitiveness Index of Ukraine based on the data of the Global Competitiveness Report has been conducted. This study will help to identify prospects of Ukraine’s participation in the global innovation process. The Global Competitiveness Index of Ukraine consists of several elements. In our study, the topics related to the topic of the article, namely, "Financial system", "Market size", "Business dynamics" and "Opportunity of innovations" are studied.
So, let’s consider the innovative development indicators of the business environment, financial and economic system of the national economy in Ukraine. An assessment of the elements "Financial system" and "Market size" of the Global Competitiveness Index of Ukraine in 2018 is shown in *table 1*.

**Table 1**

Estimation of the elements of the "Financial system" and "Market size" of the Global Competitiveness Index of Ukraine in 2018

| Index Component | Value | Score | Rank/140 | Best Performer |
|-----------------|-------|-------|----------|----------------|
| Financial system 0–100 (best) | - | 48.7 | 117 | United States |
| Domestic credit to private sector, % GDP | 59.7 | 62.9 | 56 | Multiple (29) |
| Financing of SMEs 1–7 (best) | 3.1 | 34.9 | 118 | United States |
| Venture capital availability 1–7 (best) | 2.7 | 28.1 | 92 | United States |
| Market capitalization, % GDP | 20.3 | 20.3 | 77 | Multiple (12) |
| Insurance premium, % GDP | 1.5 | 25.7 | 76 | Multiple (16) |
| Soundness of banks 1–7 (best) | 2.8 | 30.0 | 135 | Finland |
| Non-performing loans, % loan portfolio value | 30.5 | 39.5 | 136 | Multiple (2) |
| Credit gap percentage points | -30.1 | 100.0 | 4 | Multiple (97) |
| Banks’ regulatory capital ratio | 15.4 | 96.8 | 84 | Multiple (72) |
| Market size 0–100 (best) | - | 62.7 | 47 | China |
| Gross domestic product PPP, $ billions | 336 | n/a | 49 | China |
| Imports, % GDP | 56.6 | n/a | 42 | Hong Kong SAR |

*Source*: compiled by author according to the data [16–20].

The Global Competitiveness Index consists of more than 100 variables grouped in 12 pillars (elements). According to the study, Ukraine has worsened its position in 4 out of 12 key indicators. Most lost (minus 13 points) as part of "Labor Market Efficiency". The tendency to deterioration of this indicator was observed in last year’s studies. Also, Ukraine suffered losses in the estimation of the innovation component of the Index – (minus 9 points), infrastructure (minus 3 points) and the component that represents higher education and professional training (minus 2 points).

The estimation of the element "Business dynamism" of the Global Competitiveness Index of Ukraine in 2018 is presented in *table 2*.

**Table 2**

Estimation of the element "Business dynamism" of the Global Competitiveness Index of Ukraine in 2018

| Index Component | Value | Score | Rank/140 | Best Performer |
|-----------------|-------|-------|----------|----------------|
| Business dynamism 0–100 (best) | - | 55.3 | 86 | United States |
| Cost of starting a business, % GNI per capita | 0.8 | 99.6 | 18 | Multiple (2) |
| Time to start a business | 6.5 | 94.0 | 37 | New Zealand |
| Insolvency recovery rate, cents/$ | 8.9 | 9.6 | 129 | Norway |
| Insolvency regulatory framework 0–16 (best) | 7.5 | 46.9 | 93 | Multiple (5) |
| Attitudes toward entrepreneurial risk 1–7 (best) | 4.7 | 62.4 | 17 | Israel |
| Willingness to delegate authority risk 1–7 (best) | 3.9 | 49.0 | 97 | Denmark |
| Growth of innovative companies 1–7 (best) | 3.5 | 41.5 | 112 | Israel |
| Companies embracing disruptive ideas 1–7 (best) | 3.4 | 39.3 | 84 | United State |

*Source*: compiled by author according to the data [16–20].
The estimation of the element "Innovation capability" of the Global Competitiveness Index of Ukraine in 2018 is shown in table 3.

Table 3

Estimation of the "Innovation capability" element of the Global Competitiveness Index of Ukraine in 2018

| Index Component                                      | Value | Score | Rank/140 | Best Performer |
|------------------------------------------------------|-------|-------|----------|----------------|
| Innovation capability 0–100 (best)                   | -     | 39.0  | 58       | Germany        |
| Diversity of workforce 1–7 (best)                    | 4.5   | 58.7  | 62       | Canada         |
| State of cluster development 1–7 (best)              | 3.2   | 37.3  | 106      | United States  |
| International co-inventions, applications/million pop.| 0.50  | 12.5  | 56       | Multiple (7)   |
| Multi-stakeholder collaboration 1–7 (best)           | 3.7   | 45.5  | 56       | United States  |
| Scientific publications H Index                      | 215.7 | 79.7  | 50       | Multiple (7)   |
| Patent applications, applications/million pop.        | 1.41  | 16.2  | 62       | Multiple (8)   |
| R&D expenditures, % GDP                              | 0.6   | 20.6  | 56       | Multiple (7)   |
| Quality of research institutions index               | 0.04  | 10.2  | 44       | Multiple (7)   |
| Buyer sophistication 1–7 (best)                      | 3.4   | 39.2  | 74       | United States  |
| Trademark applications, applications/million pop.     | 653.88| 69.8  | 60       | Multiple (7)   |

Source: compiled by author according to the data [16–20].

In order to more detailed research on the innovative development of the business environment of the national economy in Ukraine, a correlation analysis was conducted to identify the relationship between financial system, market size, business dynamism, innovation capability and 18 indicators, including indicators such as inflation, GDP deflator; domestic credit provided by financial sector; foreign direct investment, net inflows; GDP growth; gross capital formation; military expenditures; tax revenue; bank capital to assets ratio; bank liquid reserves to bank assets ratio; bank non-performing loans to total gross loans; central government debt; deposit interest rate; domestic credit to private sector; GDP per capita growth; net financial account; profit tax; short-term debt; trade.

Table 4 deals with the dependence correlation coefficients of financial system, market size, business dynamism, innovation capability with the researched indicators.

The analysis of the table shows that there is a direct relationship between the financial system and GDP growth, GDP per capita growth, gross capital formation, tax revenue. The largest correlation coefficient is between the financial system and Gross capital formation. An analysis shows the reverse dependence between financial system and military expenditures, short-term debt, trade, and central government debt. The analysis confirms the direct relationship between market size and bank capital to assets ratio, profit tax; reverse relationship between market size and inflation, GDP deflator; military expenditures; tax revenue; central government debt; bank liquid reserves to bank assets ratio.

As to the element of business dynamism, we can draw the following conclusions: direct dependence is observed with foreign direct investment, bank non-performing loans to total gross loans, deposit interest rate; reverse dependence is between inflation, GDP deflator, profit tax, short-term debt.
### Table 4

**Correlation coefficients of financial system, market size, business dynamism, innovation capability with researched indicators**

| Indicator | Direct dependence | Indicator | Reverse dependence |
|-----------|------------------|-----------|--------------------|
| **Financial system** | | | |
| GDP growth (annual %) | 0.5717 | Military expenditure (% of GDP) | –0.6712 |
| GDP per capita growth (annual %) | 0.6022 | Short-term debt (% of total external debt) | –0.5617 |
| Gross capital formation (% of GDP) | 0.7346 | Trade (% of GDP) | –0.7459 |
| Tax revenue (% of GDP) | 0.6235 | Central government debt, total (% of GDP) | –0.5349 |
| **Market size** | | | |
| Bank capital to assets ratio (%) | 0.730649 | Inflation. GDP deflator (annual %) | –0.6019 |
| Profit tax (% of commercial profits) | 0.562807 | Military expenditure (% of GDP) | –0.73763 |
| | | Tax revenue (% of GDP) | –0.64498 |
| | | Central government debt, total (% of GDP) | –0.65802 |
| | | Bank liquid reserves to bank assets ratio (%) | –0.70485 |
| **Business dynamism** | | | |
| Foreign direct investment. net inflows (BoP, current US$) | 0.7631 | Inflation. GDP deflator (annual %) | –0.6748 |
| Bank nonperforming loans to total gross loans (%) | 0.5632 | Profit tax (% of commercial profits) | –0.6512 |
| Deposit interest rate (%) | 0.6702 | Short-term debt (% of total external debt) | –0.7238 |
| **Innovation capability** | | | |
| GDP growth (annual %) | 0.7612 | Inflation. GDP deflator (annual %) | –0.67081 |
| Bank liquid reserves to bank assets ratio (%) | 0.5691 | Profit tax (% of commercial profits) | –0.7120 |

*Sourced: calculated by the author based on World Bank data [21].

The innovation capability element shows a direct correlation with GDP growth, the bank’s liquid reserves to the bank assets ratio, and the reverse dependence is between inflation, the GDP deflator and profit tax.

Negative factors for doing business in our country are determined (in order of decreasing): inflation, corruption, political instability, high tax rates, complexity of tax legislation, instability of governments, complicated access to finance, ineffective state bureaucracy, currency market regulation, lack of education of employees, bad ethics of workforce, lack of ability to innovate, restrictive regulation of the labor market, inappropriate quality of infrastructure, crime and theft, poor quality of protection dignity.

Today, there are a number of deterrent factors that hinder the development of innovations and investments in the Ukrainian market, which leads to a reduction of potentially possible profits of Ukrainian business entities from innovation and investment activities. Among the key factors is the instability of Ukrainian legislation, the underdevelopment of market infrastructure, in particular the stock market, and strong tax pressures.
Ukraine has been regressing in all world rankings in recent years. This is due to unresolved internal and external problems, which should include conscious and unconscious actions of officials and business entities; coincidence of objective circumstances (global financial crisis, political crisis of government). In most ratings, the place of Ukraine has been reduced because of this. Ukraine’s strategic priorities for raising the level of international competitiveness should be reflected in the system of gradual steps of adaptation of the national economy to changes in global globalization and integration processes. The main mechanism for enhancing the competitive advantages of Ukraine is the implementation of internal reforms and the transformation of the vectors of foreign economic policy. Also, the state’s efforts should be directed towards innovative development and the formation of a favorable business environment that will enable to realize the existing innovative and human potential and will become a prerequisite for the gradual increase of Ukraine’s international competitiveness in world rankings.

The key to Ukraine’s high competitiveness at the international level is to increase the efficiency and productivity of a diversified national economy, which should be based on a powerful technological, scientific and investment base. The existing level of budget financing of the educational sphere is devoid of investment character, does not provide reliable development and modernization of education. Domestic business structures have not yet realized that investing in education is one of the most profitable spheres of capital investment. The strategic task for Ukraine at the present stage should be to determine the priority development of science and high technologies and active innovation policy. Innovation is a potential for economic growth. Delaying with the definition of national priorities of a country can lead to its removal from making strategic decisions on the development of mutually beneficial regional relations.

Conclusion. After conducting the research to identify and justify the factors of possible innovative development of the business environment and the financial-economic system of the national economy of Ukraine in order to create the prospects of participation in the global innovation process, we can draw some conclusions. Among the indicators of the "Financial system" component of the Global Competitiveness Index of Ukraine, the best value in 2018 is the credit gap points (4th among 140 countries), domestic credit to private sector in % GDP (56th among 140 countries). Worst indicators of this component for Ukraine are: non-performing loans in% loan portfolio value (136th among 140 countries), soundness of banks (135th among 140 countries), and financing of SMEs (118th among 140 countries).

As to the component of the “Innovation Capability” of the Global Competitiveness Index of Ukraine in 2018, the best value is Quality of research institutions index (44th among 140 countries), scientific publications H Index (50th among 140 countries), R & D expenditures % GDP (56th among 140 countries). Ukraine’s worst position is in the following areas: State of cluster development (106th among 140 countries), Buyer sophistication (74th among 140 countries).
Innovative development of the business environment of the national economy in Ukraine requires the proper methodological, technical, technological and resource support, otherwise it is impossible to fully use the potential of the national economy. On separate, above-mentioned directions, Ukraine is at a rather high level. However, more elements need to be brought to the level of economically developed countries. The continuation of scientific research on this issue will further the innovative development of the national economy, as well as improve the social and economic situation in the country.

REFERENCES

1. Antokhov, A. A. (2015). Innovatsiyniy rozvitok ekonomiki Ukraï’ni cherez prizmu zarubîzhnogo dosvidu [Innovative development of the Ukrainian economy through the prism of foreign experience]. Naukoviy visnik MNU im. V. O. Sukhomlins’koho. (Vol. 2 (5), 7 [in Ukrainian].

2. Kuklin, A. A., & Korobkov, I. V. (2018). Vybor efektivnoy trajektorii sotsial’no-ekonomicheskogo razvitiya regiona [Selection of an effective trajectory of socioeconomic development of the region]. Economy of the region. (Vol. 14/4), 1145-1155 [in Russian].

3. Ogorodnikov, P. I., Zaloznaya, G. M., & Borovsky, A. S. (2018). Sistemnyy analiz obespecheniya stabil’nosti efektivnogo funktsionirovaniya innovatsionnoy i tsifrovoy ekonomiki na osnove intellektualizatsii sistem kompleksnoy bezopasnosti [System analysis for ensuring the stability of the effective functioning of innovation and digital economy on the basis of the intellectualization of the complex security system]. Economy of the region. (Vol. 14/4), (pp. 1221-1231) [in Russian].

4. Prokhorchuk, S. V. (2015). Innovatsiyna spromozhni st’ yekonomiki Ukraï’ni v umovah globalizatsii’ [Innovative capacity of the Ukrainian economy in the conditions of globalization]. Scientific and Production Magazine. (Vol. 1 (36), 93 [in Ukrainian].

5. Shipulina, Yu. S., & Kostik, K. O. (2018). Shlyakh rozvitku innovatsiynoi’ diial’nosti Ukraï’ni v globalizovanomu ekonomichnomu prostorі [Ways of Ukraine’s innovation development in the globalized economic space]. Retrieved from http://mer.fem.sumdu.edu.ua/content/articles/issue_19/YULIYA_S_SHYPULINA_OKSANA_V_KOSTYKThe_Ways_of_Development_Ukrainian_Innovation_Activity_in_Globalized_Economy.pdf [in Ukrainian].

6. Batuo, M., Mlambo, K., & Asongu, S. (2018). Linkages between financial development, financial instability, financial liberalization and economic growth in Africa. Research in International Business and Finance, 45, 168-179 [in English].

7. Inekwe, J. N, Jin, Y. & Valenzuela, M. R. (2018). The effects of financial distress: Evidence from US GDP growth. Economic Modeling, 72, 8-21 [in English].

8. Kim, D. W., Yu, J. S., & Hassan, M. K. (2018). Financial inclusion and economic growth in OIC countries. Research in International Business and Finance, 43, 1-14 [in English].

9. Kozubikova, L., & Zoubkova, A. (2016). The Entrepreneur’s Attitude toward Innovative and Competitive Aggressiveness: The case study of the Czech micro-enterprises. Journal of International Studies. (Vol. 9), 1, (pp. 192-204) [in English].
Халатур С. Бізнес-середовище України: теоретичні концепти інноваційного розвитку.

Постановка проблеми. Становлення єдиною глобального ринку, формування динамічного конкурентного бізнес-середовища та прагнення досягти успіху в конкурентній боротьбі потребують дослідження теоретичних концептів інноваційного розвитку бізнес-середовища та фінансово-економічної системи національної економіки. Вирішення цієї проблеми тісно пов'язане з використанням потужних інформаційних технологій у поєднанні з концепцією інноваційного розвитку.

Аналіз останніх досліджень і публікацій показав, що попри наявність окремих наукових доробків, залишається невирішеною важлива науково-практична проблема щодо оцінки бізнес-середовища України.

Мета статті – ідентифікувати та обґрунтувати чинники можливого інноваційного розвитку бізнес-середовища та фінансово-економічної системи національної економіки України для виявлення перспектив участі в глобальному інноваційному процесі.

Матеріали та методи. У процесі дослідження використано методи системний підхід; абстрактно-логічний; статистичного аналізу.
Результати дослідження. Стаття присвячена оцінці можливостей інноваційного розвитку в Україні. В ній здійснено спробу ідентифікувати та обґрунтувати чинники можливого інноваційного розвитку бізнес-середовища та фінансово-економічної системи національної економіки України для виявлення перспектив участі у глобальному інноваційному процесі. Реалізація пропозицій матиме вплив на сферу оцінки ефективності бізнесу.

Висновки. На відміну від існуючих публікацій, вперше окреслено ряд показників, різні методи та межі вимірювання продуктивності для оцінки інноваційних процесів. з управлінської точки зору, необхідне фокусування уваги та витрачання ресурсів під час усього інноваційного процесу. Стверджується, що поінформоване використання показників оцінки як орієнтирів для підвищення уваги керівників та виявлення проблем може допомогти керівництву сприяти ефективності інноваційних зусиль. Менеджери можуть порівнювати висновки цього дослідження зі своїми власними інноваційними практиками і, таким чином збагачувати базу знань.

Інноваційний розвиток бізнес-середовища та фінансово-економічної системи національної економіки України потребує належного методологічного, техніко-технологічного та ресурсного забезпечення, інакше неможливо повною мірою використати потенціал національної економіки. По окремих, зазначених напрямках Україна знаходиться на достатньо високому рівні. Проте більшість елементів необхідно доводити до рівня економічно розвинених країн.

Проведена робота створила основу для подальших досліджень у сфері вимірювання результативності інновацій та управління.

Ключові слова: інdex конкурентоспроможності, стратегічні пріоритети, інновації, глобальна економіка, інвестиції.