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SOYBEAN FUTURES MARKETS- EXPLORING LINKAGES BETWEEN INDIA AND CHINA

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Soybean is a key commodity in the agricultural segment for its global demand, supply and trade. Soybean has been found to provide better diversification benefits than any other commodity against the stock index in China (Liu, Tse, & Zhang, 2018). It has also been found that, unlike other commodities, the role of gold and soybean as a robust, safe-haven asset has not faded during the covid-19 pandemic (Ji, Zhang, & Zhao, 2020). India and China are among the five largest soybean-producing countries in the world.

Soybean being an important agricultural commodity, little literature is available on the linkages of Indian soybean futures with global markets. This article studies the relationship of soybean futures of NCDEX (National Commodity and Derivatives Exchange) with the DCE (Dalian Commodity Exchange) instead of exchanges in developed economies like the US. India and China share similar population sizes and thus similar consumption behaviour. The two countries represent almost 86 per cent of BRIC countries population and 36 per cent of the world population. Moreover, both the emerging economies have similar trade history in commodities. So being the largest producer, consumer, exporter and importer of commodities, the economies have limitless potential and opportunity to boom in commodity derivatives trading. This article studies the linkages of soybean futures traded at NCDEX with the two soybean products (no. 1 soybean and no. 2 soybean) traded at DCE.

Official websites of NCDEX (India) and DCE (China) have been used to collect data. Weekly data was collected for 12 years, from 1 Apr 2009 to 31 Mar 2021. With the advantage of getting enough observation for analysis, taking weekly data helps avoid irregular trading days and zero-trade volume problems as encountered.

To test the long-run relationship between the variables, ARDL bound test, proposed by Pesaran, Shin, & Smith (2001) has been used. The test is used when the variables under consideration are not integrated at the same level. The Toda-Yamamoto method, introduced by Toda & Yamamoto (1995), is used to test the Granger causality. The Toda-Yamamoto approach is an alternative and improvement over the traditional Granger causality test. The validity of this test is independent of the order of integration of the series. Furthermore, this method is free from the bias associated with the unit root testing and cointegrating properties of the variables.

Instead of studying the unconditional correlation, the conditional correlation has gained popularity for depicting the true dynamic nature of the correlation between the variables. To study the Dynamic correlation between the markets, DCC –GARCH Model, proposed by Engle (2002), has been used. The model uses the resulting variance series from the univariate GARCH model to estimate the DCC GARCH parameters. Further, the GARCH models of VARMA class proposed by Ling & McAleer (2003) have been frequently used in the literature for their usefulness in the study of cross-market return and volatility spillover. The VAR GARCH is a restricted VARMA GARCH model, and the restricted version has been more popular among analysts. This model gives more efficiency of parameters with less computational complications, unlike other multivariate GARCH models. VAR GARCH models are also free to suffer from identification or cancellation problems (Lutkepohl, 2005).

F-statistics from ARDL bound test has been found less than the lower bound for each product. This indicates no cointegrating relationship between the agricultural commodity futures of NCDEX and DCE. So, although the Indian and Chinese soybean markets are mostly efficient in their respective domestic markets, and, these markets have been found to be in a long-run relationship with the developed economies, a long-run relationship could not be found between the futures markets of India and China.

For the no. 2 soybean futures, Indian markets Granger cause Chinese markets. For the no. 1 soybean futures, no causality is detected from either side. The different results of Soybean (NCDEX) with No. 1 soybean and No. 2 soybeans of DCE are not surprising as no.1 soybean and no. 2 soybeans in China have been found to represent a distinct market in China. Rather more importance should be given to no. 2 soybean as the information share of No. 2 soybean is much more than that of no. 1 soybean despite having a small market share (He & Wang, 2011). Another reason for the importance of No. 2 soybean is that this contract includes trading in non-genetically modified soybean produce and the genetically modified produce of soybean.

The DCC GARCH result indicates that the short-term persistence of shocks is not there between the markets for no. 2 soybean futures. The GARCH term indicating the long-run persistence of shocks between the markets is found to be significant for both products. The magnitude of the DCC GARCH term is much higher than the DCC- ARCH term. The sum of the DCC- α term and DCC- β term is also less than 1, indicating the mean-reverting property of the model.

Results of VAR (1) GARCH (1,1,) indicate a high return spillover between the soybean futures markets of India and China. Also, significant short-term predictability is interpreted in the soybean markets of both exchanges. Since most of the coefficients are positive, the positive relationship is supported by the DCC graph of soybean futures, where the graph is mostly in the positive zone. Both the markets

have significant effects from their respective markets, as well as there is high volatility and shock spillover also from the Indian market to the Chinese market and vice versa. So, it can be said as a bidirectional volatility spillover between the soybean futures market of both countries. The coefficients for both markets are mostly negative about the shock and volatility spillover from another market. This indicates although the markets are related, the direction is opposite. The results for soybean futures are similar to the findings obtained in DCC GARCH models.

Our results from granger causality confirm that the causal relationship of the two products of Chinese soybean futures with the Indian soybean futures is not the same. Soybean futures of India and China have bidirectional spillover in the return and volatility. Therefore, the news or shocks from the international markets are required to be considered. The findings recommend that the market participants should take the international news or shock cautiously while dealing in soybean futures. Portfolio managers, investors and traders have important implications from the results while including soybean futures in their portfolio for diversification benefits.

References

- Engle, R. (2002). Dynamic conditional correlation: A simple class of multivariate generalized autoregressive conditional heteroskedasticity models. *Journal of Business and Economic Statistics*, 20(3), 339–350.
- He, L., & Wang, R. (2011). A tale of two markets: Who can represent the soybean futures markets in China? *African Journal of Business Management*, 5(3), 826–832.
- Ji, Q. Q., Zhang, D., & Zhao, Y. (2020). Searching for safe-haven assets during the COVID-19 pandemic. *International Review of Financial Analysis*, 71(May), 101526.
- Ling, S., & McAleer, M. (2003). Asymptotic theory for a vector ARMA-GARCH model. *Econometric Theory*, 19(2), 280–310.
- Liu, Q., Tse, Y., & Zhang, L. (2018). Including commodity futures in asset allocation in China. *Quantitative Finance*, 18(9), 1487–1499.
- Lutkepohl, H. (2005). *New Introduction to Multiple Time Series Analysis*. Springer.
- Pesaran, M. H., Shin, Y., & Smith, R. J. (2001). Bounds testing approaches to the analysis of level relationships. *Journal of Applied Econometrics*, 16(3), 289–326.

IDENTIFICATION OF CO-INTEGRATION BETWEEN INDIAN AND US ENERGY AND AGRICULTURE COMMODITIES

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Price risk management is a fundamental but vital function of commodity market. To effectively discharge this function, commodity market has to be efficient. Since the introduction of commodity market trading, there have been questions on the very basic functions of commodity market viz. Are commodity markets performing price risk management function? Do these markets lead to price discovery? Are these markets informational efficient? An efficient commodity market provides an estimate of future spot price of underlying commodity in the form futures price and hence helps in managing price risk associated with that commodity. There are numerous studies on commodity futures market efficiency in both developed and emerging economies. The findings of these studies are conflicting in nature. Many studies like Nigatu and Adjemian (2020), Arora and Sandhar (2017), Malhotra and Sharma (2016), Singh and Singh (2015), Ali and Gupta (2011), Singh (2010), Lokare (2007), Bose (2006), Gulen (2000) and many others report evidence of efficient commodity markets. Efficient market should be co-integrated with each other. Main objective of study is to identify co-integration among Indian and US energy and metal commodities.

Augmented Dickey Fuller (ADF) and Phillip Perron (PP) tests are the most widely used stationarity. Here ADF test is used for stationarity check. Here, Akaike Information Criterion (AIC) has been used to determine the number of lags. The null hypothesis assumes that the series is nonstationary. It is important to first test the stationarity of given series before applying co-integration. The two series are expected to be non-stationary on levels and stationery on first differencing. Johansen co-integration is used to check co-integration among India and US energy and agricultural commodities

Table-1 shows the result of ADF test. Results of ADF test shows that except Maize, natural Gas, Sugar all other commodities (Cotton, Wheat and Crude oil) data are stationary on level. Rests of the commodities were tested again, and they were found stationary at 1st difference. Next important step is lag length selection. Table-2 shows the result of VAR model. VAR model has been applied for lag length selection. Preliminary condition for running Johansen Co-integration test has been fulfilled. Table-3 shows the result of Johansen Co-integration test. Result shows that agricultural commodities maize and wheat has long rung association ship among Indian and US commodity market rest two cotton and sugar have no long run association ship. Both of these two markets cannot move together in long run. In

case of energy commodities only natural gas has long run association ship and crude oil have no association ship. It means both markets cannot move together in long run.

Table 1. Result of ADF Test for Indian commodities and U.S. Commodities

Variables	Level		First difference	
	Statistic	P-Value	Statistic	P-Value
Cotton	11.2078	0.0243	113.8090	0.0000
Maize	9.33004	0.0534	131.581	0.0000
Sugar	4.20058	0.3795	138.541	0.0000
Wheat	14.5414	0.0058	150.743	0.0000
Crude oil	12.0163	0.0172	111.540	0.0000
Natural gas	5.74653	0.2189	170.536	0.0000

Table 2. Optimal Lag Length

Variables	Optimal Lag Length
Crude oil	4
Natural gas	6
Cotton	2
Maize	3
Sugar	2
Wheat	2

Table 3. Result of Johansen Co-integration Test

Variables	No. of CEs	Trace statistic		Maximum Eigen value	
		Trace stat	P-Value	Eigen stat	P value
Cotton	None	17.96793	0.0208	13.67778	0.0617
	At most 1	4.290158	0.0383	4.290158	0.0383
Maize	None	11.05331	0.2082	5.966333	0.6175
	At most 1	5.086973	0.0241	5.086973	0.0241
Sugar	None	5.824151	0.7162	1.873338	0.8645
	At most 1	1.873338	0.1711	1.873338	0.1711
Wheat	None	17.73106	0.0227	11.61178	0.1261
	At most 1	6.119277	0.0134	6.119277	0.0134
Crude oil	None	14.50996	0.0700	11.08755	0.1499
	At most 1	3.422408	0.0643	3.422408	0.0643
Natural gas	None	38.18016	0.0000	32.27312	0.0000
	At most 1	5.907040	0.0151	5.907040	0.0151

Main objective of the study is to check co-integration among metal and Energy commodities. Time series data from 2005 to 2020 has been selected and econometrics tools have been applied to achieve the objectives. Result of the study concludes that energy and metal commodities has not much influence on each other. In long run they cannot move together. From investors view point they are free to invest in any of the market. They can include any if the commodity in their portfolio. But for policy makers it is a matter of concern because the emerging market like India should have long run associations with United States Market in the era of globalization. Some policy changes are required to make long run association ship among these two markets.

References

- Ali, J., & Gupta, K. B. (2011), "Efficiency in agricultural commodity futures markets in India: Evidence from co integration and causality Tests." *Agricultural Finance Review*, 71(2):162-178.
- Arora, H. K., & Sandhar, S. K. (2017). Role of Commodity Market in Hedging Price Risk with Special Reference to Crude Oil Futures. *Finance India*, XXXI (1):233-244.
- Bose, S. (2008). Commodity Futures Market in India: A Study of Trends in the Notional Multi-Commodity Indices. *ICRA Bulletin-Money and Finance* May 2008:125-158.
- Lokare, S. M. (2007). Commodity Derivatives and Price Risk Management: An Empirical Anecdote from India. Reserve Bank of India Occasional Papers, 28(2):27-77.
- Malhotra, M., & Sharma, D. K. (2016). Efficiency and Volatility Spillover in Guar Seed Futures Market in India: An Empirical Study. *Finance India*, Vol. XXX, No. 3:847-870.
- Nigatu, G., & Adjemian, M. (2020). A Wavelet Analysis of Price Integration in Major Agricultural Markets. *Journal of Agricultural and Applied Economics*, vol. 52, 117-134.
- Singh, N. P. (2010). Efficiency of Agro Commodity Futures Market. *Prabandhan: Indian Journal of Management*, 3(2):47-53.
- Singh, A. and Singh, N. P., (2015). "Testing Seasonality and Efficiency in Chana Futures Market", *Apeejay Business Review*, 14(2)

FINANCIAL SOLVENCY OF INSURERS AS A BASIS FOR INSURANCE DEVELOPMENT

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In Ukraine, insurance covers less than 15% of the insurance field, while in most EU countries, the United States and Japan, insurance covers almost all businesses and more than 90% of citizens.

If we talk about insurers, solvency is one of the indicators that characterize its financial reliability because insurance is a system of insurance protection against the likelihood of various types of risks. Solvency is a means of compensating the insured for losses to the insured victims (Oliynyk, 2008). Solvency also means the ability of an insurance company to pay its obligations.

The uniqueness of the transformations in Ukraine does not allow the direct use of foreign approaches to assessing solvency. However, studying the experience of countries where the insurance market has been developing for a long time and successfully, it turns out that it is very appropriate (Ziabina et al., 2020; Chukwu and Kasztelnik, 2021; Medani and Bhandari, 2019; Samoilikova, 2020; Yarovenko et al., 2020; Mazurenko and Tiutiunyk, 2021).

The activities of the insurance company in market conditions require additional financial guarantees. Many years of insurance practice in market economies have shown the need and importance of such a guarantee in the form of a certain amount of capital of insurance companies. The most powerful insurance markets are the markets of the United States of America (USA) and EU countries such as Germany, France and the United Kingdom, which have the largest volumes of insurance transactions. Thus, the European market occupies the leading position with a share of 33%. Also includes the insurance market of Russia and Ukraine and in general, it is 1%, which indicates a lag behind the dynamic countries of Europe. This followed by North America and Asia (with world market shares of 30% and 29%) (Shirinyan, 2014; Mazurenko et al., 2021; Bozhenko, 2021; Starchenko et al., 2021; Dudchenko, 2020; Yelnikova and Barhaq, 2020; Goncharenko and Lopa, 2020; Eddassi, 2020; Pimonenko et al., 2021; Kryvysh and Goncharenko, 2020; Matsenko et al., 2021; Lazorenko et al., 2021; Oleksich et al., 2021; Mamay et al., 2021; Taraniuk et al., 2020).

The importance of the problem of ensuring the reliability of insurance companies prompted the Council of the European Communities already in the First Directive 73/239 / EEC of 24.07.1973 (with further additions and changes) to define the concept of the solvency of insurance companies (Shirinyan, 2014). According to the Directives, every insurance company must have:

1. Technical reserves by the obligations under the contracts. The participating

country itself determines the amount of these reserves and the rules for their allocation.

2. Solvency reserve as an additional financial guarantee. The reserve must be free of any obligations. Directive 73/239 / EEC emphasizes that it is necessary to provide that this reserve corresponds to the total volume of operations of the enterprise and is determined according to two reliability indices based, in one case, on premiums received, in another - on insurance payments.

3. Minimum guarantee fund, consisting of property free from obligations in the amount of up to 1/3 of the solvency reserve. This fund is created so that the solvency reserve can not fall below the threshold, which is dangerous for the insurance company's financial stability (Plysa, 2002).

The calculation of solvency according to the EU methodology is similar to the domestic one. Assessment of the solvency of insurance companies is carried out in three stages.

Stage 1. The required solvency margin is calculated according to a special formula.

Stage 2. The actual solvency margin is determined as the difference between assets and liabilities.

Stage 3. The estimated solvency margin is compared with the actual value of the solvency margin, which makes it possible to assess the insurance company's financial condition (Kulina, 2015).

According to the EU methodology, the calculation of the required solvency margin is calculated separately for risky types of insurance and life insurance due to the different nature of the risk distribution and the different structure of assets and liabilities.

According to SwissRe, Europe and the United States are leaders in the global insurance market. The European market occupies the leading position with a share of 33 % as shown on the map. Also includes the insurance market of Russia and Ukraine and in general, it is 1%, which indicates that the markets of these two countries lag behind the dynamic countries of Europe. Next are North America and Asia (with 30% and 29%) world market shares). Other regions account for less than 10% - South America and the Caribbean - 4%, and Australia and Oceania - also 4%.

Such significant gaps are explained primarily by the structure of insurance industries (Shkarlet et al., 2019; Vasilieva et al., 2017; Bubyk et al., 2017; Fila et al., 2020; Gallo et al., 2019). For example, in Asian countries, life insurance shares are very high (77% of the total amount of collected insurance premiums). In Europe, this figure is 47%, and in North America - 42%. Property insurance predominates in these markets. These differences are because life insurance is developing most intensively in countries with a low level of state social protection, where people have to decide on their pensions. And in poor Asian countries, the population has less property that needs insurance.

The Ukrainian system of solvency indicators is based on the European model - the First Solvency Directive, which is reflected in the provisions of the Law of Ukraine "On Insurance". However, the requirements for the solvency of domestic insurers are significantly lower than European norms and standards due to the development of the economy and the gradual development of the insurance business.

According to Ukrainian legislation, the method of determining the solvency of risk insurance companies is to determine and compare two indicators - the actual stock and the normative indicator of solvency. To ensure the appropriate level of solvency as required by law, the actual solvency margin must exceed its regulatory margin on any date.

Should bear in mind that the insurer's insolvency depends on the statutory approaches to calculating its regulatory value. Given the imperfections of Ukrainian legislation in this area, the high solvency of domestic insurers is imaginary, and its value is significantly inflated. This can be seen at least from the fact that the requirements for determining regulatory solvency, for example, in the United States, are much more stringent than in Ukraine.

There are various approaches to assessing the solvency of insurance activities in developed economies. Given this, the question arises as to which approach is most appropriate for Ukraine. To Ukraine's desire to integrate into the global insurance community and create a domestic insurance market that can compete in the international arena.

References

- Bozhenko, V. (2021). Enhancing Business Integrity as a Mechanism for Combating Corruption and Shadow Schemes in the Country. *Business Ethics and Leadership*, 5(3), 97-101. [https://doi.org/10.21272/bel.5\(3\).97-101.2021](https://doi.org/10.21272/bel.5(3).97-101.2021)
- Bublyk, M., Koval, V., Redkva, O. (2017). Analysis impact of the structural competition preconditions for ensuring economic security of the machine building complex. *Marketing and Management of Innovations*, 4, 229-240, <http://doi.org/10.21272/mmi.2017.4-20>
- Chukwu, A.O., Kasztelnik, K. (2021). Innovative Strategies For Social-Economic Development Financial Strategies In The Development Country. *SocioEconomic Challenges*, 5(1), 44-65. [https://doi.org/10.21272/sec.5\(1\).44-65.2021](https://doi.org/10.21272/sec.5(1).44-65.2021)
- Dudchenko, V.Yu. (2020). Interaction of Central Bank Independence and Transparency: Bibliometric Analysis. *Business Ethics and Leadership*, 4(2), 109-115. [https://doi.org/10.21272/bel.4\(2\).109-115.2020](https://doi.org/10.21272/bel.4(2).109-115.2020).
- Eddassi, H. (2020). Fiscal Regime and Tax Policy in Resource-Rich Countries In The Process Of Globalization: Literature Review. *SocioEconomic Challenges*, 4(2), 67-77. [https://doi.org/10.21272/sec.4\(2\).67-77.2020](https://doi.org/10.21272/sec.4(2).67-77.2020).
- Fila, M., Levicky, M., Mura, L., Maros, M., & Korenkova, M. (2020). *Innovations*

- for Business Management: Motivation and Barriers. *Marketing and Management of Innovations*, 4, 266-278. <http://doi.org/10.21272/mmi.2020.4-22>
- Gallo, P., Mihalcova, B., Vegsoova, O., Dzurov-Vargova, T & Busova, N. (2019). Innovative Trends in Human Resources Management: Evidence for the Health Care System. *Marketing and Management of Innovations*, 2, 11-20. <http://doi.org/10.21272/mmi.2019.2-01>
- Goncharenko, T., Lopa L. (2020). Balance Between Risk And Profit In The Context Of Strategic Management: The Case Of Ukrainian Banks. *SocioEconomic Challenges*, 4(1), 111-121. [http://doi.org/10.21272/sec.4\(1\).111-121.2020](http://doi.org/10.21272/sec.4(1).111-121.2020).
- Kryvyich, Y., Goncharenko, T. (2020). Banking strategic management and business model: bibliometric analysis. *Financial Markets, Institutions and Risks*, 4(1), 76-85. [http://doi.org/10.21272/fmir.4\(1\).76-85.2020](http://doi.org/10.21272/fmir.4(1).76-85.2020).
- Kulina, G. M. (2015). *Theoretical and methodological principles of assessing the solvency of insurance companies*. Retrieved from http://library.tneu.edu.ua/images/stories/praci_vukladachiv.pdf
- Lazorenko, V., Saher, L., & Jasniewski, J. (2021). Web management as a marketing management determinant: case for pharmaceutical enterprises. *Health Economics and Management Review*, 2(2), 105-114. <https://doi.org/10.21272/hem.2021.2-10>
- Mamay, A., Myroshnychenko, Iu., & Dzwigol. H. (2021). Motivation management model and practical realization within the health care institutions. *Health Economics and Management Review*, 2(2), 23-30. <https://doi.org/10.21272/hem.2021.2-03>
- Matsenko, O., Kubatko, O., Bardachenko, V., & Demchuk, K. (2021). Transformation of the Restaurant Business as a Result of the COVID-19 Pandemic: Improving the Security of Service and Maintaining the Health of Human Capital. *Health Economics and Management Review*, 2(3), 27-38. <https://doi.org/10.21272/hem.2021.3-03>
- Mazurenko, O., Tiutiunyk, I. (2021). The International Tax Competitiveness: Bibliometric Analysis. *Financial Markets, Institutions and Risks*, 5(1), 126-138. [https://doi.org/10.21272/fmir.5\(1\).126-138.2021](https://doi.org/10.21272/fmir.5(1).126-138.2021)
- Mazurenko, O., Tiutiunyk, I., Derkach, L. (2021). The Impact of Tax Morality on Tax Evasion: Evidence of EU Countries. *Business Ethics and Leadership*, 5(3), 108-112. [https://doi.org/10.21272/bel.5\(3\).108-112.2021](https://doi.org/10.21272/bel.5(3).108-112.2021)
- Medani P. Bhandari (2019). Sustainable Development: Is This Paradigm The Remedy of All Challenges? Does Its Goals Capture The Essence of Real Development and Sustainability? With Reference to Discourses, Creativeness, Boundaries and Institutional Architecture. *SocioEconomic Challenges*, 3(4), 97-128. [http://doi.org/10.21272/sec.3\(4\).97-128.2019](http://doi.org/10.21272/sec.3(4).97-128.2019).
- Oleksich, Zh., Polcyn, J., & Shtorgin, O. (2021). Adaptation of the best European practices in administering local health care institutions. *Health Economics and*

- Management Review, 2(2), 15-22. <https://doi.org/10.21272/hem.2021.2-02>
- Oliynyk, I. (2010). Solvency of the insurance company: essence and significance. *Bulletin of Khmelnytsky National University*. (Vol., № 4, pp. 18-21).
- Pimonenko, T., Us, Ya., Myroshnychenko, Yu., Dubyna, O., Vasylyna, T. (2021). Green Financing for Carbon-Free Growth: Role of Banks Marketing Strategy. *Financial Markets, Institutions and Risks*, 5(3), 71-78. [https://doi.org/10.21272/fmir.5\(3\).71-78.2021](https://doi.org/10.21272/fmir.5(3).71-78.2021)
- Plysa, V. (2002). Integration of the insurance market of Ukraine in the world insurance space. *Finance of Ukraine*. (№ 7., pp. 94-103)
- Samoilikova, A. (2020). Financial Policy of Innovation Development Providing: The Impact Formalization. *Financial Markets, Institutions and Risks*, 4(2), 5-15. [https://doi.org/10.21272/fmir.4\(2\).5-15.2020](https://doi.org/10.21272/fmir.4(2).5-15.2020).
- Shirinyan, L. V. (2014). *Insurance Management: synopsis of lectures for students majoring in 7.03050801, 8.03050801 "Finance and Credit" full-time and part-time education*. Retrieved from <http://library.nuft.edu.ua/ebook/file/48.36.pdf>.
- Shkarlet, S., Kholiavko, N., Dubyna, M. (2019). Information Economy: Management of Educational, Innovation, and Research Determinants. *Marketing and Management of Innovations*, 3, 126-141. <http://doi.org/10.21272/mmi.2019.3-10>
- Starchenko, L.V., Samusevych, Ya., Demchuk, K. (2021). Social and Eco-Friendly Entrepreneurship: The Keys to Sustainability. *Business Ethics and Leadership*, 5(1), 118-126. [https://doi.org/10.21272/bel.5\(1\).118-126.2021](https://doi.org/10.21272/bel.5(1).118-126.2021)
- Taraniuk, L., D'yakonova, I., Taraniuk, K., & Qiu, H. (2020). Basic financing principles of anti-covid measures: the case of the bank for international settlements. *Health Economics and Management Review*, 1(2), 43-50. <https://doi.org/10.21272/hem.2020.2-05>
- Vasilieva, T., Leonov, S., Makarenko, I., Sirkovska, N. (2017). Sustainability information disclosure as an instrument of marketing communication with stakeholders: markets, social and economic aspects. *Marketing and Management of Innovations*, 4, 350 – 357. <http://doi.org/10.21272/mmi.2017.4-31>
- Yarovenko, H., Kuzmenko, O., Stumpo, M. (2020). Strategy for Determining Country Ranking by Level of Cybersecurity. *Financial Markets, Institutions and Risks*, 4(3), 124-137. [https://doi.org/10.21272/fmir.4\(3\).124-137.2020](https://doi.org/10.21272/fmir.4(3).124-137.2020)
- Yelnikova, Ju., Barhaq, A.R. (2020). Transparency of Responsible Investment Environment. *Business Ethics and Leadership*, 4(4), 68-75. [https://doi.org/10.21272/bel.4\(4\).68-75.2020](https://doi.org/10.21272/bel.4(4).68-75.2020)
- Ziabina, Ye., Pimonenko, T., Starchenko, L. (2020). Energy Efficiency Of National Economy: Social, Economic And Ecological Indicators. *SocioEconomic Challenges*, 4(4), 160-174. [https://doi.org/10.21272/sec.4\(4\).160-174.2020](https://doi.org/10.21272/sec.4(4).160-174.2020)

NEED FOR PRIVATE SECTOR BANKS' CONSOLIDATION IN INDIA

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A sound banking system is the backbone of any nation for the economic upliftment and meeting the social objective of equality, free enterprise and opportunities for growth. To meet this objective Government of India first nationalised the fourteen major private banks in 1969 as the private banks in the country did not serve all sections of society. These banks belonged to various business houses and catered largely to their financial requirements / interests.

The takeover of these private banks resulted in easy reach of masses to banking services for their savings and credit requirements. Having assessed the positive impact of nationalisation another round of takeovers was implemented in 1980. In this phase six more private sector banks were nationalised taking the total nationalised bank number to twenty.

Post liberalization of Indian economy in 1991 the government appointed various committees to review the banking sector and recommend appropriate policy changes. Recommendations of Narasimham Committee I (NCI) and (NC II) laid the roadmap for reforms in banking sector. NC I was primarily constituted to examine all aspects relating to structure, organisation, and functions and procedures of the Indian financial system. The suggestions of NC-I related to reforms in the Banking, Capital Markets and Insurance Sector. These reforms are popularly known as 'Structural Adjustments' or Liberalization. The major recommendations included Reduction in Liquidity Ratio, Abolition of Directed Credit Programmes, Free Determination of Interest Rates, Improvements in Accounting System of the Banks. Reconstitution of the Banking System, Abolition of Branch Licensing, Ending Dual Control of Banks by Ministry of Finance and Reserve Bank of India and Liberalization of the Capital Markets. However one significant recommendation was that The banking system should be restructured so as to have 3 or 4 large banks which could become international in character.

Simultaneously Government announced a New Economic Policy on July 24, 1991 ushering the early phase of reforms. The new policy deregulated industrial economy in a substantial manner. Through introduction of international best practices in risk-based capital requirement standards and uniform accounting practice for income recognition and provisioning requirements for bad debts in line with Basle I norms the competition in banking system was enhanced considerably. The competition had been enhanced by way of transparent norms for entry of Indian Private Sector, Foreign and Joint Venture Banks. Also permission for foreign direct

investment (FDI) in financial sector was granted.

Banking business though looking very attractive and profitable has its own challenges. The foremost being to keep the deposits mobilised from Public safe and returning it to them timely on demand with the contracted rate of return. Profits have to be generated by judicious deployment of capital and the deposits (liabilities) in avenues which give higher return than to be paid to depositors and the shareholders on their equity. Public sector banks have the added responsibility to do social lending, the objective for which these were nationalised. Private and foreign banks too had such social targets but they either purchased portfolios from Public Sector Banks or preferred to pay penalties.

As a result of the liberalization of the financial sector in 1991 many new private sector banks sprang up. These attracted customers of Public Sector Banks with spacious air-conditioned premises, Internet Banking, ATMs and debit cards. Many of these banks even though technologically better, were devoid of hardcore professionalism of public sector banks and the larger private sector banks. Consequently, they faced challenges to survive and decided to exit timely by selling their newly acquired banking business. The economy witnessed many post-liberalisation mergers between these banks and smaller private sector banks. The mergers took place as the weak banks could not withstand competition from new generation banks.

There were 22 mergers between 1993 to 2015. A public sector New Bank of India which was a weak bank was merged in Punjab National Bank at the instance of Government of India. This brought the number of nationalized banks to nineteen.

After the liberalization of the banking sector a new phase of healthy competition between private and public sector banks evolved and their loan books started growing rapidly. The loan book of public sector banks alone grew to Rs.18 lakh crore by 2008. This was the time when new sectors of economy were being opened viz. Infrastructure and Industrial sectors like Coal Mining, Iron Ore mining, Steel making, Roads and Ports construction and Telecom. Since Private Sector banks had a single point agenda to boost their fee based income they wore the mantle of loan syndicators and aggregators. Though mainly public sector banks aggressively participated to take a share in project financing the private sector banks too took some share to broaden their balance sheets to look attractive to investors. The growth of advances of public sector banks, private banks and foreign banks from 2010 to 2020 is given in Table 1.

It can be observed that private sector banks shied away from lending during the economic boom period in the cyclic downturn after 2008. Their share in total advances portfolio of Scheduled Commercial Banks was only 21.26 percent by 2015 which went up significantly to 36.04 percent by 2020 which was the period when many Public sector banks were put under AQR (Asset Quality Review) and subsequently under Prompt Corrective Action (PCA) of Reserve Bank of India. The

large spurt of advances in private sector banks put these banks in difficulty later.

Table 1. Share of Different Groups Of Banks in Advances in Percentage

Year	Public Sector Banks	Private Sector Banks	Foreign Banks
2010	77.24	18.08	4.68
2015	74.28	21.26	4.46
2020	59.80	36.04	4.16

Source: Reserve Bank of India.

The government of India amalgamated some nationalized banks into twelve big banks to avoid need for their frequent recapitalization as it had to put in a huge amount of Rs.2.11 trillion in Oct.2017 in these banks. This was necessitated to supplement capital of these public sector banks which had been eroded substantially due to burgeoning non-performing loans (NPLs).

Most of the smaller weak banks are having poor financials and management issues making them suitable candidates for sale through mergers or acquisitions. A sample study of three important financial ratios of seven private lenders for the last five years (2017 to 2021) describes the poor financial condition of some of them as under:

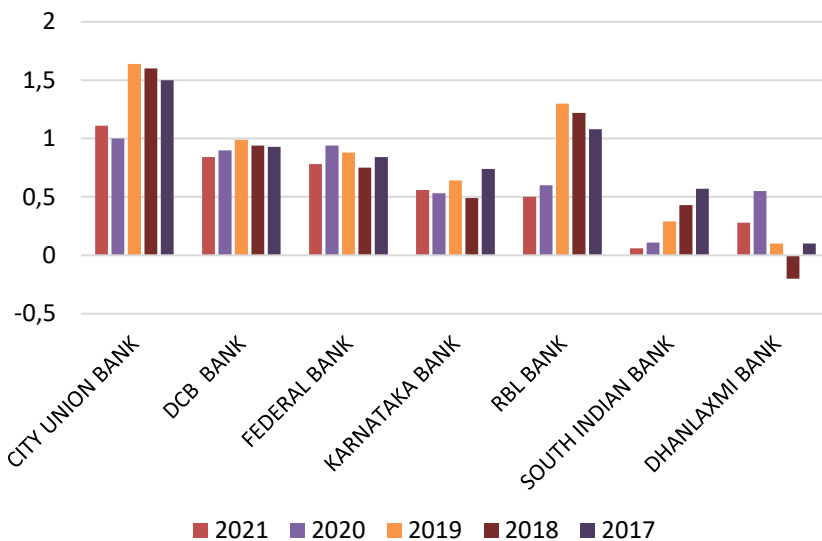


Figure 1. Return on Assets

Source: Reserve Bank of India.

Return on Assets provides insight on how effectively a company generates profits from its assets. Banks with high ROAs derive better profits from the same amount of assets than others with low ROAs. The stocks of banks with high ROAs are more likely to perform well over the long term. The ideal ratio for banks is considered to be 1 and above. It can be observed from Fig.1 that Return on Assets which is one of the important parameters of a banks’ financial assessment continues to be poor for banks like Dhanlaxmi Bank, South Indian Bank, RBL Bank and Karnataka Bank whereas it is at a better level for City Union Bank, DCB Bank and Federal Bank for the years under analysis.

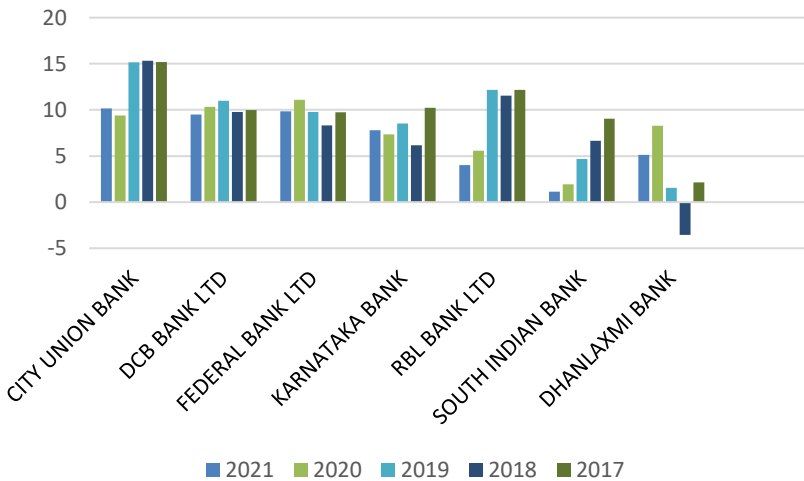


Figure 2. Return on Equity

Source: Reserve Bank of India.

Return on equity (ROE), also known as return on common equity (ROCE), is a measure of a business’s profitability. Specifically, it is a ratio describing the rate of profit growth a business generates for shareholders and owners. The ideal ratio is considered to be in the range of 10-15 percent. This ratio the Return on Equity is unsatisfactory for RBL Bank, South Indian Bank and Dhan Laxmi Bank for the years between 2017-2021 as reflected in Fig.2. It is going down below 5 percent for all the three banks for the current financial year 2021.

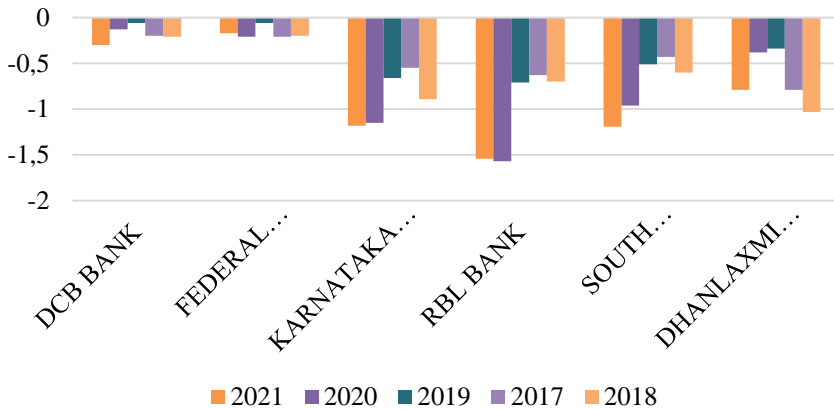


Figure 3. Operating Profit

Source: Reserve Bank of India.

Operating profits is an indirect measure of efficiency. The higher the operating profit, the more profitable a banks' core business is. Several factors can affect the operating profit. These include the pricing strategy of the business, cost of borrowings (Deposits) and yield on advances. It can be observed that almost all banks under study are having negative operating profits. It is however highly negative for Karnataka Bank, RBL Bank, South Indian Bank and Dhanlaxmi Bank. Also the operating results of private banks indicate that City Union Bank, RBL Bank, South Indian Bank and Dhanlaksmi Bank are having very high ratio of NPLs in the range of 5 percent and above.

There are many studies in India and in other countries which emphasize that governments have to be transparent in dealing with restructuring of banks. Also, any forbearance should be avoided as the delays in recognizing the banking problems makes it worse with time lag. Also, it is to be borne in mind that failure of a banking entity has a spiral effect on the economy and the depositors lose faith in the system. In India there have been recent cases of stress at Yes Bank, Lakshmi Vilas Bank (LVB) and PWC Bank where government had to intervene and take steps to ward off insolvency of these banks. Some of the private sector lenders are having stress in their operations as reflected by their ROA, ROE, Operating Profits and NPLs. It is high time that Government of India and Reserve Bank of India give due attention to this area and amalgamate the weak private lenders with the strong ones like ICICI bank, Kotak Mahindra Bank and HDFC Bank.

REVIEW OF METHODS OF ECONOMIC AND MATHEMATICAL MODELING OF BANKING RISKS

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The activities of each financial institution are accompanied by risky decision-making. There are several approaches to determining «risk», but the vast majority of scientists consider this concept as the probability of a negative result from the activity. For example, I. Ivchenko, the author of the manual «Modeling of economic risks and risk situations» uses the following definition: «Risk is the probability of losses or non-receipt of income compared to the forecast option» (2007). In the textbook «Planning of the enterprise» the authors V. Pasichnyk and O. Akilina gives the following explanation: «the essence of risk is that every company is constantly threatened by loss of profit and solvency in the implementation of economic and financial activities under the influence of unforeseen changes in the internal environment» (2005).

Banking risks are divided into:

- liquidity risk (on the website of the National Bank of Ukraine the causes of liquidity risk are: inability to manage funds, changes in funding or execution of off-balance sheet sources of resources) (2021).

- risk of changes in credit rates (arises due to adverse changes and interest rates, impact on profitability and value of assets, liabilities and off-balance sheet instruments) (2021).

- credit risks (arising from the inability of the obliging party, the terms of any financial agreement with the bank or otherwise committed) (2021).

- capital adequacy (The editorial board under the leadership of V. Stelmakh gives the following definition in the «Encyclopedia of Banking» «Capital adequacy – an indicator, that shows the availability of capital sufficient to perform its functions and cover the risks required during banking operations» (2009).

Risks cannot be completely avoided, but they can be investigated, analyzed and their consequences minimized (Mazurenko et al., 2021; Bozhenko, 2021; Starchenko et al., 2021; Dudchenko, 2020; Samoilikova, 2020; Yarovenko et al., 2020; Mazurenko and Tiutiunyk, 2021; Pimonenko et al., 2021; Kryvykh and Goncharenko, 2020; Matsenko et al., 2021; Lazorenko et al., 2021; Oleksich et al., 2021; Mamay et al., 2021; Taraniuk et al., 2020). Economists use economic-mathematical methods and models to assess and manage risks (Yelnikova and Barhaq, 2020; Goncharenko and Lopa, 2020; Eddassi, 2020; Ziabina et al., 2020; Chukwu and Kasztelnik, 2021; Medani and Bhandari, 2019).

Economic-mathematical methods and models are a set of scientific

directions, such as statistics and econometrics, aimed at the study of economic processes by mathematical methods. The use of economic and mathematical methods is widely used to solve practical problems, namely: organizing information and creating requirements for planning and management, problem analysis and study of factors that affect economic processes (Shkarlet et al., 2019; Vasilieva et al., 2017; Bublyk et al., 2017; Fila et al., 2020; Gallo et al., 2019). Mathematical methods allow to simulate economic situations and assess the consequences of choosing certain solutions. Methods of economic and mathematical analysis regulate the activities of credit and financial institutions, providing a choice of optimal solutions, allow you to analyze the value and possibilities of minimization, reducing uncertainty.

The most common economic and mathematical methods and models used to manage banking risk are:

- Method of mathematical programming. This group of methods allows you to minimize creditor errors and maximize profits, taking into account various constraints. Using the thematic programming method, the best optimal customer shares in the loan portfolio and / or the optimal parameters of credit products.

- Methods of linear programming. This method is used by analysts in solving many optimization problems, where the functional determinants of the studied phenomena and processes are deterministic. The results obtained using linear programming methods provide an opportunity to analyze the service and analyze the potential for changing the value of any of the parameters of the object under study, as well as other reserves that are not realized by the possibilities. Linear programming problems are successfully solved using modern specialized software products (2009).

- Methods of mathematical games. Used in the field of management decisions at the stage of forming an alternative and choosing the optimal strategy. Analytically, they can be presented as a game, three or more players, each of whom wants to maximize their benefits (minimally lose) at the expense of another strategy by choosing the optimal strategy. An example is the relationship between the bank and the client.

- A method of studying the operations of use in the analysis to obtain a comparative assessment of alternative solutions. The complexity of the method is that the researched operations are open systems, as well as related to other actions, which at a certain point in time are not of interest to the study, but can affect the course of operations. However, awareness of operations, its purpose, analysis of factors used for this purpose, comparison of costs and results should give the analyst a reason to identify certain and formulate the conditions of the tasks, conducting a selection of indicators.

Thus, the use of these economic and mathematical methods allows us to reduce the probability of loss of profit.

References

- Bachevsky, B. E., Zablodskaya, I. V., & Reshetnyak, O. O. (2009). *Potential and development of the enterprise* [E-book]. Center for Educational Literature.
- Bozhenko, V. (2021). Enhancing Business Integrity as a Mechanism for Combating Corruption and Shadow Schemes in the Country. *Business Ethics and Leadership*, 5(3), 97-101. [https://doi.org/10.21272/bel.5\(3\).97-101.2021](https://doi.org/10.21272/bel.5(3).97-101.2021)
- Bublyk, M., Koval, V., Redkva, O. (2017). Analysis impact of the structural competition preconditions for ensuring economic security of the machine building complex. *Marketing and Management of Innovations*, 4, 229-240, <http://doi.org/10.21272/mmi.2017.4-20>
- Chukwu, A.O., Kasztelnik, K. (2021). Innovative Strategies For Social-Economic Development Financial Strategies In The Development Country. *SocioEconomic Challenges*, 5(1), 44-65. [https://doi.org/10.21272/sec.5\(1\).44-65.2021](https://doi.org/10.21272/sec.5(1).44-65.2021)
- Credit risk.* (n.d.). https://Old.Bank.Gov.Ua/Control/Uk/Publish/Article?Art_id=123415&cat_id=123213. Retrieved November 23, 2021, from https://old.bank.gov.ua/control/uk/publish/article?art_id=123415&cat_id=123213
- Dudchenko, V.Yu. (2020). Interaction of Central Bank Independence and Transparency: Bibliometric Analysis. *Business Ethics and Leadership*, 4(2), 109-115. [https://doi.org/10.21272/bel.4\(2\).109-115.2020](https://doi.org/10.21272/bel.4(2).109-115.2020).
- Eddassi, H. (2020). Fiscal Regime and Tax Policy in Resource-Rich Countries In The Process Of Globalization: Literature Review. *SocioEconomic Challenges*, 4(2), 67-77. [https://doi.org/10.21272/sec.4\(2\).67-77.2020](https://doi.org/10.21272/sec.4(2).67-77.2020).
- Fila, M., Levicky, M., Mura, L., Maros, M., & Korenkova, M. (2020). Innovations for Business Management: Motivation and Barriers. *Marketing and Management of Innovations*, 4, 266-278. <http://doi.org/10.21272/mmi.2020.4-22>
- Gallo, P., Mihalcova, B., Vegsoova, O., Dzurov-Vargova, T & Busova, N. (2019). Innovative Trends in Human Resources Management: Evidence for the Health Care System. *Marketing and Management of Innovations*, 2, 11-20. <http://doi.org/10.21272/mmi.2019.2-01>
- Goncharenko, T., Lopa L. (2020). Balance Between Risk And Profit In The Context Of Strategic Management: The Case Of Ukrainian Banks. *SocioEconomic Challenges*, 4(1), 111-121. [http://doi.org/10.21272/sec.4\(1\).111-121.2020](http://doi.org/10.21272/sec.4(1).111-121.2020).
- Interest rate risk.* (n.d.). https://Old.Bank.Gov.Ua/Control/Uk/Publish/Article?Art_id=123608&cat_id=123320. Retrieved November 23, 2021, from https://old.bank.gov.ua/control/uk/publish/article?art_id=123608&cat_id=123320

- Ivchenko, I. Y. (2007). *Modeling of economic risks and risk situations*. Center for Educational Literature.
- Kryvych, Y., Goncharenko, T. (2020). Banking strategic management and business model: bibliometric analysis. *Financial Markets, Institutions and Risks*, 4(1), 76-85. [http://doi.org/10.21272/fmir.4\(1\).76-85.2020](http://doi.org/10.21272/fmir.4(1).76-85.2020).
- Lazorenko, V., Saher, L., & Jasniewski, J. (2021). Web management as a marketing management determinant: case for pharmaceutical enterprises. *Health Economics and Management Review*, 2(2), 105-114. <https://doi.org/10.21272/hem.2021.2-10>
- Liquidity risk. (n.d.). https://old.bank.gov.ua/control/uk/publish/article?art_id=123610&cat_id=123320. Retrieved November 23, 2021, from https://old.bank.gov.ua/control/uk/publish/article?art_id=123610&cat_id=123320
- Mamay, A., Myroshnychenko, Iu., & Dzwigol, H. (2021). Motivation management model and practical realization within the health care institutions. *Health Economics and Management Review*, 2(2), 23-30. <https://doi.org/10.21272/hem.2021.2-03>
- Matsenko, O., Kubatko, O., Bardachenko, V., & Demchuk, K. (2021). Transformation of the Restaurant Business as a Result of the COVID-19 Pandemic: Improving the Security of Service and Maintaining the Health of Human Capital. *Health Economics and Management Review*, 2(3), 27-38. <https://doi.org/10.21272/hem.2021.3-03>
- Mazurenko, O., Tiutiunyk, I. (2021). The International Tax Competitiveness: Bibliometric Analysis. *Financial Markets, Institutions and Risks*, 5(1), 126-138. [https://doi.org/10.21272/fmir.5\(1\).126-138.2021](https://doi.org/10.21272/fmir.5(1).126-138.2021)
- Mazurenko, O., Tiutiunyk, I., Derkach, L. (2021). The Impact of Tax Morality on Tax Evasion: Evidence of EU Countries. *Business Ethics and Leadership*, 5(3), 108-112. [https://doi.org/10.21272/bel.5\(3\).108-112.2021](https://doi.org/10.21272/bel.5(3).108-112.2021)
- Medani P. Bhandari (2019). Sustainable Development: Is This Paradigm The Remedy of All Challenges? Does Its Goals Capture The Essence of Real Development and Sustainability? With Reference to Discourses, Creativeness, Boundaries and Institutional Architecture. *SocioEconomic Challenges*, 3(4), 97-128. [http://doi.org/10.21272/sec.3\(4\).97-128.2019](http://doi.org/10.21272/sec.3(4).97-128.2019).
- Oleksich, Zh., Polcyn, J., & Shtorgin, O. (2021). Adaptation of the best European practices in administering local health care institutions. *Health Economics and Management Review*, 2(2), 15-22. <https://doi.org/10.21272/hem.2021.2-02>
- Pasichnyk, V. G., & Akilina, O. V. (2005). *Business planning: a textbook*. Center for Educational Literature.
- Pimonenko, T., Us, Ya., Myroshnychenko, Yu., Dubyna, O., Vasylyna, T. (2021). Green Financing for Carbon-Free Growth: Role of Banks Marketing Strategy.

- Financial Markets, Institutions and Risks, 5(3), 71-78. [https://doi.org/10.21272/fmir.5\(3\).71-78.2021](https://doi.org/10.21272/fmir.5(3).71-78.2021)
- Samoilikova, A. (2020). Financial Policy of Innovation Development Providing: The Impact Formalization. *Financial Markets, Institutions and Risks*, 4(2), 5-15. [https://doi.org/10.21272/fmir.4\(2\).5-15.2020](https://doi.org/10.21272/fmir.4(2).5-15.2020).
- Shkarlet, S., Kholiavko, N., Dubyna, M. (2019). Information Economy: Management of Educational, Innovation, and Research Determinants. *Marketing and Management of Innovations*, 3, 126-141. <http://doi.org/10.21272/mmi.2019.3-10>
- Starchenko, L.V., Samusevych, Ya., Demchuk, K. (2021). Social and Eco-Friendly Entrepreneurship: The Keys to Sustainability. *Business Ethics and Leadership*, 5(1), 118-126. [https://doi.org/10.21272/bel.5\(1\).118-126.2021](https://doi.org/10.21272/bel.5(1).118-126.2021)
- Stelmakh, V. S., Alyoshin, V. B., & Moroz, A. M. (2001). *Encyclopedia of Banking of Ukraine / Nat. Bank of Ukraine, Institute of Independent Experts* [E-book].
- Taraniuk, L., D'yakonova, I., Taraniuk, K., & Qiu, H. (2020). Basic financing principles of anti-covid measures: the case of the bank for international settlements. *Health Economics and Management Review*, 1(2), 43-50. <https://doi.org/10.21272/hem.2020.2-05>
- Vasilieva, T., Lieonov, S., Makarenko, I., Sirkovska, N. (2017). Sustainability information disclosure as an instrument of marketing communication with stakeholders: markets, social and economic aspects. *Marketing and Management of Innovations*, 4, 350 – 357. <http://doi.org/10.21272/mmi.2017.4-31>
- Yarovenko, H., Kuzmenko, O., Stumpo, M. (2020). Strategy for Determining Country Ranking by Level of Cybersecurity. *Financial Markets, Institutions and Risks*, 4(3), 124-137. [https://doi.org/10.21272/fmir.4\(3\).124-137.2020](https://doi.org/10.21272/fmir.4(3).124-137.2020)
- Yelnikova, Ju., Barhaq, A.R. (2020). Transparency of Responsible Investment Environment. *Business Ethics and Leadership*, 4(4), 68-75. [https://doi.org/10.21272/bel.4\(4\).68-75.2020](https://doi.org/10.21272/bel.4(4).68-75.2020)
- Ziabina, Ye., Pimonenko, T., Starchenko, L. (2020). Energy Efficiency Of National Economy: Social, Economic And Ecological Indicators. *SocioEconomic Challenges*, 4(4), 160-174. [https://doi.org/10.21272/sec.4\(4\).160-174.2020](https://doi.org/10.21272/sec.4(4).160-174.2020)

GREEN BANKING IN THE SYSTEM OF EFFECTIVE FINANCING OF INVESTMENTS PROJECTS

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Nowadays, most scientists are convinced that the process of human development has entered a completely new stage, which can be described as catastrophic in terms of the environmental impact of society on climate and nature in general. To our mind, in such conditions innovative components in the economy could more effectively influence the process of halting the deterioration of the world's environmental situation.

Over the last ten years, there have been radical changes in project financing approaches. In the process of functioning, banking institutions moved from the position of non-interference to the realization of its role in the field of environmental management and social responsibility, which embodied the concept of sustainable development in the banking sector and in the modern condition known as green banking.

The development of green banking and the creation of green banks (green investment banks, clean energy finance authorities) in a constant shortage of financial resources can be an influential element of environmental regulation through financial support for green projects and environmental management (Chukwu and Kasztelnik, 2021; Medani and Bhandari, 2019; Samoilikova, 2020; Yarovenko et al., 2020; Mazurenko and Tiutiunyk, 2021; Pimonenko et al., 2021).

Speaking about the advantages of such banks, they could be the following: preferential interest rates on loans, the possibility of extending the loan repayment period, writing off part of the loan amount in case of fulfillment of the conditions specified in the loan agreement to reduce the negative impact on the environment (Mazurenko et al., 2021; Bozhenko, 2021; Starchenko et al., 2021; Dudchenko, 2020; Yelnikova and Barhaq, 2020; Goncharenko and Lopa, 2020; Eddassi, 2020; Ziabina et al., 2020; Kryvych and Goncharenko, 2020; Matsenko et al., 2021; Lazorenko et al., 2021; Oleksich et al., 2021; Mamay et al., 2021; Taraniuk et al., 2020).

In addition in the process of protecting the environment, green banking practices help to solve important environmental problems by investing and lending to such projects and companies that adopt the green concept, on the one hand, and reducing internal carbon footprints such as lighting and air conditioning, electronic equipment, large waste of paper due to the use of renewable energy, which leads to less reduction of trees and reduces environmental pollution on the other hand. Customers, in its turn, save time and money through green banking, as well as reduce

the amount of gas used when traveling to the bank, because instead they can apply to the bank for any online banking activity. Similarly, it also helps online payment services to avoid late payments.

For banks, green banking offers minor benefits, including increased friendliness and reputation, customer loyalty, a positive environmental impact, and the simplicity of the banking process that outweighs the monetary benefits. It also helps to understand corporate social responsibility and environmental performance and maintain its ethical standards.

In European financial circles, the green banking system is considered an important environmentally friendly philosophy of creating and running a business, which involves the use of resource-saving environmentally friendly technologies and products and encourages the implementation of environmental projects based on environmentally and socially responsible financing.

Green banking is implemented bilaterally: on the one hand, as a mechanism of banking management aimed at reducing environmental damage and costs due to the current operating activities of banks. For example, some banks have supported the concept of a “green” office.

In particular, Privatbank has implemented an electronic document management system. Thanks to the operation of this system and other electronic banking systems, the bank saves more than 20 tons of paper annually due to the introduction of electronic service of providing certificates and a digital system for processing incoming correspondence, which is transferred to the electronic form upon receipt by the bank.

On the other hand, green banking can be organized as a mechanism for providing monetary credit resources to stimulate environmental projects, the production of “green” technologies, environmental goods and services or to develop environmental activities (Shkarlet et al., 2019; Vasilieva et al., 2017; Bublyk et al., 2017; Fila et al., 2020; Gallo et al., 2019). That type of mechanism for implementing green banking that is an integral part of the economic mechanism of environmental regulation as a potential new mechanism of domestic environmental policy and attracts the most attention as a component of “green” finance.

In particular, these are the following new tools of the mechanism of providing monetary credit resources by Ukrainian green banking (Veklych, 2019):

- preferential credit rates (ie lower than market rates) for financing environmental projects, production of green technologies, environmental goods and services, purchase of environmentally friendly equipment on lease, as well as for the mobilization of green private investment;
- extended loan term for financing large-scale infrastructure projects for environmental protection, etc;
- loans, credits or other services for the purchase of certificates for emissions of pollutants (trade-in certificates for emissions);

- issue of asset-backed securities to finance large-scale infrastructure projects aimed at environmental protection (issue of green securities);
- sale by financial institutions of municipal bonds to finance environmental protection projects (partial credit guarantee for the implementation of green projects).

The most important task of providing the modern economy with the necessary investment resources in the field of eco-innovation activities of economic entities can be solved through the use of economic levers and incentives, their coordinated interaction, a clear sequence of functioning in the system of effective institutions of domestic innovation. play a significant role in co-financing environmental projects and programs in a crisis and lack of funds.

Thus, the introduction of green banking and the creation of environmental banks can be one of the driving forces to combat acute environmental problems, while increasing the share of environmental projects, which in turn increases the country's investment attractiveness and further promotes its economic growth.

References

- Bozhenko, V. (2021). Enhancing Business Integrity as a Mechanism for Combating Corruption and Shadow Schemes in the Country. *Business Ethics and Leadership*, 5(3), 97-101. [https://doi.org/10.21272/bel.5\(3\).97-101.2021](https://doi.org/10.21272/bel.5(3).97-101.2021)
- Bublyk, M., Koval, V., Redkva, O. (2017). Analysis impact of the structural competition preconditions for ensuring economic security of the machine building complex. *Marketing and Management of Innovations*, 4, 229-240, <http://doi.org/10.21272/mmi.2017.4-20>
- Chukwu, A.O., Kasztelnik, K. (2021). Innovative Strategies For Social-Economic Development Financial Strategies In The Development Country. *SocioEconomic Challenges*, 5(1), 44-65. [https://doi.org/10.21272/sec.5\(1\).44-65.2021](https://doi.org/10.21272/sec.5(1).44-65.2021)
- Dudchenko, V.Yu. (2020). Interaction of Central Bank Independence and Transparency: Bibliometric Analysis. *Business Ethics and Leadership*, 4(2), 109-115. [https://doi.org/10.21272/bel.4\(2\).109-115.2020](https://doi.org/10.21272/bel.4(2).109-115.2020).
- Eddassi, H. (2020). Fiscal Regime and Tax Policy in Resource-Rich Countries In The Process Of Globalization: Literature Review. *SocioEconomic Challenges*, 4(2), 67-77. [https://doi.org/10.21272/sec.4\(2\).67-77.2020](https://doi.org/10.21272/sec.4(2).67-77.2020).
- Fila, M., Levicky, M., Mura, L., Maros, M., & Korenkova, M. (2020). Innovations for Business Management: Motivation and Barriers. *Marketing and Management of Innovations*, 4, 266-278. <http://doi.org/10.21272/mmi.2020.4-22>
- Gallo, P., Mihalcova, B., Vegsoova, O., Dzurov-Vargova, T & Busova, N. (2019). *Innovative Trends in Human Resources Management: Evidence for the Health*

- Care System. *Marketing and Management of Innovations*, 2, 11-20. <http://doi.org/10.21272/mmi.2019.2-01>
- Goncharenko, T., Lopa L. (2020). Balance Between Risk And Profit In The Context Of Strategic Management: The Case Of Ukrainian Banks. *SocioEconomic Challenges*, 4(1), 111-121. [http://doi.org/10.21272/sec.4\(1\).111-121.2020](http://doi.org/10.21272/sec.4(1).111-121.2020).
- Kryvyich, Y., Goncharenko, T. (2020). Banking strategic management and business model: bibliometric analysis. *Financial Markets, Institutions and Risks*, 4(1), 76-85. [http://doi.org/10.21272/fmir.4\(1\).76-85.2020](http://doi.org/10.21272/fmir.4(1).76-85.2020).
- Lazorenko, V., Saher, L., & Jasniewski, J. (2021). Web management as a marketing management determinant: case for pharmaceutical enterprises. *Health Economics and Management Review*, 2(2), 105-114. <https://doi.org/10.21272/hem.2021.2-10>
- Mamay, A., Myroshnychenko, Iu., & Dzwigol. H. (2021). Motivation management model and practical realization within the health care institutions. *Health Economics and Management Review*, 2(2), 23-30. <https://doi.org/10.21272/hem.2021.2-03>
- Matsenko, O., Kubatko, O., Bardachenko, V., & Demchuk, K. (2021). Transformation of the Restaurant Business as a Result of the COVID-19 Pandemic: Improving the Security of Service and Maintaining the Health of Human Capital. *Health Economics and Management Review*, 2(3), 27-38. <https://doi.org/10.21272/hem.2021.3-03>
- Mazurenko, O., Tiutiunyk, I. (2021). The International Tax Competitiveness: Bibliometric Analysis. *Financial Markets, Institutions and Risks*, 5(1), 126-138. [https://doi.org/10.21272/fmir.5\(1\).126-138.2021](https://doi.org/10.21272/fmir.5(1).126-138.2021)
- Mazurenko, O., Tiutiunyk, I., Derkach, L. (2021). The Impact of Tax Morality on Tax Evasion: Evidence of EU Countries. *Business Ethics and Leadership*, 5(3), 108-112. [https://doi.org/10.21272/bel.5\(3\).108-112.2021](https://doi.org/10.21272/bel.5(3).108-112.2021)
- Medani P. Bhandari (2019). Sustainable Development: Is This Paradigm The Remedy of All Challenges? Does Its Goals Capture The Essence of Real Development and Sustainability? With Reference to Discourses, Creativeness, Boundaries and Institutional Architecture. *SocioEconomic Challenges*, 3(4), 97-128. [http://doi.org/10.21272/sec.3\(4\).97-128.2019](http://doi.org/10.21272/sec.3(4).97-128.2019).
- Oleksich, Zh., Polcyn, J., & Shtorgin, O. (2021). Adaptation of the best European practices in administering local health care institutions. *Health Economics and Management Review*, 2(2), 15-22. <https://doi.org/10.21272/hem.2021.2-02>
- Pimonenko, T., Us, Ya., Myroshnychenko, Yu., Dubyna, O., Vasylyna, T. (2021). Green Financing for Carbon-Free Growth: Role of Banks Marketing Strategy. *Financial Markets, Institutions and Risks*, 5(3), 71-78. [https://doi.org/10.21272/fmir.5\(3\).71-78.2021](https://doi.org/10.21272/fmir.5(3).71-78.2021)

- Samoilikova, A. (2020). Financial Policy of Innovation Development Providing: The Impact Formalization. *Financial Markets, Institutions and Risks*, 4(2), 5-15. [https://doi.org/10.21272/fmir.4\(2\).5-15.2020](https://doi.org/10.21272/fmir.4(2).5-15.2020).
- Shkarlet, S., Kholiavko, N., Dubyna, M. (2019). Information Economy: Management of Educational, Innovation, and Research Determinants. *Marketing and Management of Innovations*, 3, 126-141. <http://doi.org/10.21272/mmi.2019.3-10>
- Starchenko, L.V., Samusevych, Ya., Demchuk, K. (2021). Social and Eco-Friendly Entrepreneurship: The Keys to Sustainability. *Business Ethics and Leadership*, 5(1), 118-126. [https://doi.org/10.21272/bel.5\(1\).118-126.2021](https://doi.org/10.21272/bel.5(1).118-126.2021)
- Taraniuk, L., D'yakonova, I., Taraniuk, K., & Qiu, H. (2020). Basic financing principles of anti-covid measures: the case of the bank for international settlements. *Health Economics and Management Review*, 1(2), 43-50. <https://doi.org/10.21272/hem.2020.2-05>
- Vasilieva, T., Lieonov, S., Makarenko, I., Sirkovska, N. (2017). Sustainability information disclosure as an instrument of marketing communication with stakeholders: markets, social and economic aspects. *Marketing and Management of Innovations*, 4, 350 – 357. <http://doi.org/10.21272/mmi.2017.4-31>
- Vekluch O. (2019). “Green” banking: the essence, mechanism and tools of implementation. In the book. “Green” investments in sustainable development: world experience and the Ukrainian context. Kyiv: Razumkov Center, P. 236–251.
- Yarovenko, H., Kuzmenko, O., Stumpo, M. (2020). Strategy for Determining Country Ranking by Level of Cybersecurity. *Financial Markets, Institutions and Risks*, 4(3), 124-137. [https://doi.org/10.21272/fmir.4\(3\).124-137.2020](https://doi.org/10.21272/fmir.4(3).124-137.2020)
- Yelnikova, Ju., Barhaq, A.R. (2020). Transparency of Responsible Investment Environment. *Business Ethics and Leadership*, 4(4), 68-75. [https://doi.org/10.21272/bel.4\(4\).68-75.2020](https://doi.org/10.21272/bel.4(4).68-75.2020)
- Ziabina, Ye., Pimonenko, T., Starchenko, L. (2020). Energy Efficiency Of National Economy: Social, Economic And Ecological Indicators. *SocioEconomic Challenges*, 4(4), 160-174. [https://doi.org/10.21272/sec.4\(4\).160-174.2020](https://doi.org/10.21272/sec.4(4).160-174.2020)

SHAREHOLDER ACTIVISM AND CORPORATE PERFORMANCE DURING COVID-19: EVIDENCE FROM THE INDIAN BANKING SECTOR

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The outbreak of Covid – 19 around the world has emerged as one of the most unpredictable events of this centennial and has created a profound impact on all the economy's sectors. The rampant proliferation of the pandemic has not only caused momentous disruptions in the personal health of the human race but has also severely affected the GDP growth and trade prospects of all the world economies (Baragde, D. B., et al. (2021). The banking sector in India, which is already grappling with ascending non-performing assets in past financial years, suffered a significant setback due to poor debt servicing capacity of the borrowers, decrease in the asset quality, and soaring bad loans during the pandemic period (Financial Stability Report, RBI, 2020, p.11-13). Various measures in the form of providing the adequate loan moratorium, deferment of net stable funding ratio and ease of working capital financing are taken by RBI from time to time to provide financial relief to the Indian banking sector (Aneja, R., & Ahuja, V. (2021). While the regulatory authority, RBI, focused entirely on providing economic relief to the Indian banks, no key action is taken by it to ensure those clear regulatory and supervisory standards concerning the shareholder rights and their access to appropriate information at all levels. Good governance by sensitivity to shareholder needs and rights is essential and plays a vital role in both recovery and forming a new normal post-pandemic in the banking sector (Ramasamy, D. (2020). The study measures the effect of Covid-19 on shareholder activism, a governance measure and corporate performance of the Indian banking sector for the period 2019-2020.

It evaluates the impact of Covid-19 on shareholder activism and the bank's performance in the pre- and post-pandemic period. It also empirically investigates their interrelationship during uncertain times. Shareholder's committee, board's independence, shareholder rights and their approvals in related party transactions are considered the independent variables which reflects shareholder activism while return on assets and return on net worth, reflecting the financial performance are taken as dependent variables (Endo, K. (2020). The influence of pandemic on the bank's governance and performance variables, pre and post covid time is analyzed by using the t-test. To scrutinize the association between shareholder activism governance variables and bank's performance during the Covid – 19 period, the panel data methodology is employed

Adequate constitution of shareholder's committee has emerged as the sole prominent governance parameter of shareholder activism that exerted a dominant influence on the bank's performance during the pandemic. The other independent variables such as board independence, shareholder information and rights and shareholders' approval in related party transactions were found to have an inverse interrelationship with bank's performance.

The results of the study propound the policymakers in developing a suitable governance framework that seeks to meet the shareholder expectations, provide them with openness and transparency to whistle-blower policies and tends to increase their activism at all levels (Karpoff, J. M. (2021). It highlights that policymaker shall work closely with the board of directors and help them in identifying the potential risks arising in the protecting the shareholder rights and getting the delayed resolutions passed with their consent. It stresses that comprehensive disclosure shall work positively in the interests of the external stakeholders and will create confidence in them related to the overall working of the banks. It also stresses on development of a shareholder-centric model which focuses not only on increasing the shareholder returns but also effectively working upon creating shareholder value during and after the pandemic (Prisandani, U. Y. (2021).

The study is imperative in providing the heuristic view on Covid – 19 repercussions on the governance procedures and the corporate performance. It demonstrates the contemporary issues of shareholder governance rights during the pandemic and unveils the avenues for subsequent research. The current study makes an effort to bestow to the deficient studies in this particular area. The effect of the pandemic on the governance of the Indian banks concerning shareholder activism is investigated. There exist few studies, which limit themselves to review the Covid – 19 impacts on the corporate governance of the firms. Such studies highlight the overall implications of the pandemic in different sectors of the Indian economy as well as the monetary steps which regulatory bodies shall undertake to reduce the pandemic's worst effects. The present study augments the existing literature of the Covid – 19 crises by empirically examining the influence of pandemic on the relationship of shareholder's governance and the bank's performance. The study also attempts to broaden current literature by examining the pandemic impact on banks' governance and performance variables during pre and post-crisis periods.

The current study intends to contribute to the limited studies analyzing the impact of Covid 19 by considering the governance about shareholder activism and performance dimensions of Indian banking sector. However, the authors acknowledge the presence of certain limitations which may provide suitable opportunities for future research. A future study with a large sample size or large period shall be carried out to better understand the impact of Covid – 19. Similarly, a comparative study can be conducted which empirically tests the pandemic impact

across different sectors or financial markets. All the corporate governance variables are not inculcated in the current study. Future research can consider other dimensions of governance such as audit committee, remuneration, risk governance committee and corporate social responsibility etc. The bank-specific performance variables such as current account savings account ratio, net to income ratio and economic value added can be analyzed to examine the operating performance.

References

- Aneja, R., & Ahuja, V. (2021). An assessment of the socioeconomic impact of COVID-19 pandemic in India. *Journal of Public Affairs*, 21(2), e2266.
- Baragde, D. B., & Jadhav, A. U. (2021). Impact of COVID-19 on Indian SMEs and Survival Strategies. In *Handbook of Research on Strategies and Interventions to Mitigate COVID-19 Impact on SMEs* (pp. 280-298). IGI Global.
- Endo, K. (2020). Corporate governance beyond the shareholder–stakeholder dichotomy: Lessons from Japanese corporations' environmental performance. *Business Strategy and the Environment*, 29(4), 1625-1633.
- Karpoff, J. M. (2001). The impact of shareholder activism on target companies: A survey of empirical findings. Available at SSRN 885365.
- Prisandani, U. Y. (2021). Shareholder activism in Indonesia: revisiting shareholder rights implementation and future challenges. *International Journal of Law and Management*.
- Ramasamy, D. (2020). Impact Analysis in Banking, Insurance and Financial services industry due to COVID-19 Pandemic. *Pramana Research Journal*, 10(8).
- Reserve Bank of India (2020, July). *Financial Stability Report (No 21)*. <https://rbidocs.rbi.org.in/rdocs//PublicationReport/Pdfs/0FSRJULY2020C084CED43CD1447D80B4789F7E49E499.PDF>

CONCEPT OF CREATIVE ACCOUNTING

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Recent economic failures have created various credibility concerns concerning accounting as an authenticating system and the accuracy of its reports in making optimal management and investment decisions. Enron, WorldCom, BCCI, Robert Maxwell Pension Funds, Global Crossing, Adelphia, Tyco, and Arthur Andersen, one of the "Big Five" accounting firms, are all examples of companies that went bankrupt (Ramly and Rashid, 2010, McColgan, 2001, Khan. et. al, 2011 and Heath and Norman, 2004). These incidents demonstrate beyond a shadow of a doubt that the financial reports presented to the public by management and confirmed by auditors were a misrepresentation of the firms' true financial status. The accountants, managers, and auditors are charged with manipulating, distorting, and misrepresenting facts and figures in order to create fictitious outcomes, as well as overlooking such misrepresentation in order to offer a clean opinion to such management. Many studies have been undertaken on these 'creative' accounting techniques, their manipulations, re-representations, and reasons in the middle of these crises and corporate failures, and the resulting loss of reputation for the accounting profession (Beshiru & Izedonmi, 2014, Fizza & Qaisar, 2015).

Given how firmly established the techniques are and who gains the most, few practitioners are pessimistic about finding a solution to these manipulations. As a result, it's important to figure out how much of a negative impact this "creativity" has on accounting reports. The worsening of this degradation is the driving force for this study. It aims to emphasise the need of understanding the motives for negative creativity and determining the direction and degree of activities required to stop it from infiltrating the economic lives of businesses and its stewards. To that end, the study aims to investigate the concept of "creativity" in creative accounting, as well as the motivations for such creativity and their implications for the enterprise's health. It also aims to determine the impact of such benefits in encouraging more negative creativity, as well as to identify other complementary variables that encourage facts and figures manipulations and misrepresentations, and to propose possible strategies to reduce or control their spread. As a result, the purpose of this research is to look into the impact of innovative accounting techniques on the rate of business failure around the world. Its goal is to see how much inventive accounting procedures boost the rate at which businesses around the world fail.

The Concept of Creativity. Accounting is one of a company's most fundamental functions. Both management and decision-makers outside the organisation rely heavily on the financial data it delivers. Financial reporting's

primary goal is to present a fair and impartial picture of the business to all interested parties. This frequently results in a conflict of interest. On the one hand, investors demand dependable and trustworthy financial data in order to make informed judgments. On the other hand, corporations that, in order to attract investors, are resorting to unethical methods of creative accounting, or earnings management, as a result of increased competition and economic conditions.

Creative accounting is a methodology for erroneously creating or interpreting accounting regulations with the goal of misusing accounting techniques and standards defined by accounting bodies. The goal of this type of business strategy is to gain money by not revealing exact data. The word "creative accounting" does not appear in any accounting rules or regulations, nor are the processes for its use specified. It's an attempt to take advantage of flaws in our accounting system as well as our audit system once the accounts are closed. Companies sometimes make loans to their known persons to deliberately hide the transactions performed during the year or increasing the usable life of an asset arbitrary to get rid of the greater depreciation charged, are some of the examples of creative accounting.

Overview of recent research. Many aspects of creative accounting have been studied in past study, according to Bhasin (2016), but no one has looked at what the people who prepare financial statements, as well as their users, think about it. Based on this, a survey in India revealed that most respondents feel creative accounting has negative consequences on financial reporting and is difficult to detect. Nonetheless, there are differing views on whether creative accounting is legal. Karim et al. (2016) performed a survey to determine whether there is a gap between accounting and auditing perceptions of creative accounting, as well as potential regulatory remedies in Bangladesh. According to the report, there is no need to penalise either auditors or accountants who use creative accounting. Accountants are the sole employees of the organisation who obey management's orders. As a result, if management mandates that financial statements be prepared in a specific way, accountants will prioritise retaining their jobs and will adhere to the instructions.

Mindak et al. (2016) investigated whether companies utilise creative accounting techniques to meet analyst forecasts and outperform the previous year's earnings, and whether the market rewards or punishes such manipulations. According to the report, all the companies who were able to achieve the targets did so by employing inventive accounting practises to artificially boost profitability and were rewarded by the market for doing so. Companies that managed earnings to cut them to the point where they barely met the specified goals, on the other hand, were not rewarded. As a result, organisations that aim to maintain the same level of earnings over time are not regarded "excellent" because they do not outperform the market.

The relationship between the audit committee and audit quality, as well as the

practise of earnings management, has been explained by Inaam and Khamoussi (2016). The primary goal of corporate governance in financial reporting is to ensure that accounting rules are followed and that financial statements are accurate and trustworthy. As a result, excellent corporate governance should ensure that effective controls are in place and that unethical managerial behaviour is avoided. Although quality corporate governance, audit committees, and quality audit implementation are thought to influence the limited use of various earnings management approaches, this study found a negative link between earnings management and practise.

According to Shahid and Ali (2016), creative accounting has a substantial impact on Pakistan's fair and objective financial reporting. It is vital to emphasise corporate governance and the strengthening of ethical standards in order to prevent financial information manipulation. In a good sense, the limited and modest use of creative accounting should have no impact on the quality of financial reporting.

Because most of the research in the topic of creative accounting focuses on how it affects company, Goel (2017) investigated the influence of creative accounting on stock market pricing. The findings revealed that firms utilise accruals to manipulate financial data, most frequently during periods when financial markets are apprehensive about a company's future commercial prospects.

Motives for applying creative accounting:

- personal gain
- competition
- recruiting investors
- raising or preserving capital
- buying time to avoid paying debts
- outperforming experts' predictions about future firm performance

Creative accounting techniques:

- changes in accounting rules and depreciation procedures
- manipulation of other income and cost items
- changes in the value of money
- overestimation of revenues through the recording of phoney sales revenues
- manipulation of receivables write-offs
- manipulation of accruals

Techniques for preventing creative accounting:

- accounting standards adaption in terms of reduced use of guesses and consistency in accounting procedures application.
- acknowledging and emphasising the need of internal and external audit in detecting and reporting erroneous estimates and preventing accounting fraud.
- From one accounting period to the next, the audit service providers may change.
- appointing independent directors and audit committee members
- putting in place strong corporate governance controls

- the company's commitment to creating a whistle-blower policy
- reiterating the code of ethics to employees on a regular basis
- emphasising the creation and application of forensic accounting
- informing investors about the practise of altering financial data
- ensuring that fines are consistently enforced by national authorities.

Conclusion. The primary goal of financial reporting is to present a fair and impartial picture of the company while taking into consideration basic accounting principles and assumptions. Accounting standards, on the other hand, frequently enable and require various accounting guesses, which can lead to financial data manipulation. Creative accounting is a type of accounting that allows a corporation to divert its profits and revenues for the year while still adhering to the norms and regulations. It is a skill that is utilised by specialists to manipulate a company's accounting. Any questionable item should be questioned by management, and if the management is unable to respond, the investor should not invest in these bogus companies. Finally, while creative accounting cannot be totally eliminated, it can be minimised through the employment of various techniques.

References

- Bhasin, M. L. (2016), "Survey of Creative Accounting Practices: An Empirical Study", *Wulfenia Journal*, Vol. 23, No. 1, pp. 143-162.
- Tassadaq, F., & Malik, Q. A. (2015). Creative accounting & financial reporting: model development & empirical testing. *International Journal of Economics and Financial Issues*, 5(2).
- Goel, S. (2017), "Earnings management detection over earnings cycles: the financial intelligence in Indian corporate", *Journal of Money Laundering Control*, Vol. 20, No. 2, pp. 116-129.
- Heath, J., & Norman, W. (2004). Stakeholder theory, corporate governance and public management: what can the history of state-run enterprises teach us in the post-Enron era?. *Journal of business ethics*, 53(3), 247-265.
- Inaam, Z., Khamoussi, H. (2016), "Audit committee effectiveness, audit quality and earnings management: a meta-analysis", *International Journal of Law and Management*, Vol. 58, No. 2, pp. 179-196.
- Jones, I., & Pollitt, M. (2004). Understanding how issues in corporate governance develop: Cadbury report to Higgs review. *Corporate Governance: An International Review*, 12(2), 162-171.
- Karim, A. M., Shaikh, J. M., Hock, O. Y., Islam, M. R. (2016), "Solution of Adapting Creative Accounting Practices: An In-depth Perception Gap Analysis among Accountants and Auditors of Listed Companies", *Australian Academy of Accounting and Finance Review*, Vol. 2, No. 2, pp. 166-188.
- Khan, A. R., Hossain, D. M., & Siddiqui, J. (2011). Corporate ownership

- concentration and audit fees: The case of an emerging economy. *Advances in Accounting*, 27(1), 125-131.
- Li, K., & Broshko, E. B. (2006). Corporate governance requirements in Canada and the United States: A legal and empirical comparison of the principles-based and rules-based approaches. *Sauder School of Business Working Paper*.
- McColgan, P. (2001). Agency theory and corporate governance: a review of the literature from a UK perspective. *Department of Accounting and Finance Working Paper*, 6, 0203.
- Mindak, M. P., Sen, P. K., Stephan, J. (2016), "Beating threshold targets with earnings management", *Review of Accounting and Finance*, Vol. 15, No. 2, pp. 198-221.
- Ramly, Z., & Rashid, H. M. A. (2010). Critical review of literature on corporate governance and the cost of capital: The value creation perspective. *African Journal of Business Management*, 4(11), 2198-2204.
- Sanusi, B., & Izedonmi, P. F. (2014). Nigerian commercial banks and creative accounting practices. *Journal of Mathematical finance*, 2014.
- Shahid, M., Ali, H. (2016), "Influence of Creative Accounting on Reliability and Objectivity of Financial Reporting (Factors Responsible for Adoption of Creative Accounting Practices in Pakistan)", *Journal of Accounting and Finance in Emerging Economies*, Vol. 2, No. 2, pp. 75-82.

ANALYSIS OF THE IMPACT OF ONLINE PAYMENTS ON THE SECURITY OF BUSINESS DIGITALIZATION¹

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Today, digitalization is a global trend, which is the introduction of digital technologies in all areas of business: from interaction with customers to automation of industrial production, from product marketing to logistics solutions and more. Based on the question of what the digitalization of business is, we can say that this process is deep for the company. Its main objectives are: improving the product (quality of the product or service, its attractiveness, ease of use, delivery); automation of production and other internal processes of the company; simplification of internal and external communications (Mazurenko et al., 2021; Bozhenko, 2021; Starchenko et al., 2021; Samoilikova, 2020; Yarovenko et al., 2020; Mazurenko and Tiutiunyk, 2021; Pimonenko et al., 2021; Kryvykh and Goncharenko, 2020; Matsenko et al., 2021; Lazorenko et al., 2021; Oleksich et al., 2021; Mamay et al., 2021; Taraniuk et al., 2020).

Digitalization of business is aimed at optimizing business processes, the use of digital technologies and improving the accuracy of economic systems, including the transition to electronic platforms and contactless ways of conducting business operations (Security Risk, 2017; Shkarlet et al., 2019; Vasilieva et al., 2017; Bublyk et al., 2017; Fila et al., 2020; Gallo et al., 2019). Statistics show that the number of contactless payments in Ukraine last year increased by more than 45%, if we analyze certain categories - the rapid growth in transport services - by 60%, in the food trade - by more than 100% (Alrawais, 2020).

In the context of digitalization of business processes, an alternative to cash payments is the use of innovative contactless technology NFC tags (Near Field Communication). With the rapid development of the Internet and wireless technologies, it has gained high popularity and has become the most common tool for digitalizing business operations (Dudchenko, 2020; Yelnikova and Barhaq, 2020; Goncharenko and Lopa, 2020; Eddassi, 2020; Ziabina et al., 2020; Chukwu and Kasztelnik, 2021; Medani and Bhandari, 2019). Specialists of the payment systems company ACI Worldwide, which is the leader in software development focused on simplifying electronic payments over time, published a rating indicating the ranking of countries in the use of NFC technologies. The figure shows the leading countries

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and the volumes of the payment market for 2020 for 48 world markets (Fig. 1). According to statistics from the transnational financial corporation MasterCard, among all non-cash payments in Ukraine in 2020, 72% of payments were made contactless, while in 2019 this figure was 51%. Today 46% of all contactless payments in Ukraine are made using NFC tags in smartphones and gadgets (Alrawais, 2020).

The size of the world market for the use of NFC technology has been growing dynamically since 2014. Figure 2 shows the forecast data of the market size of the contactless payment system, indicating that over the next 3 years the volume of its use will almost double (from \$ 25.5 billion in 2021 to USD 47.3 billion in 2024).

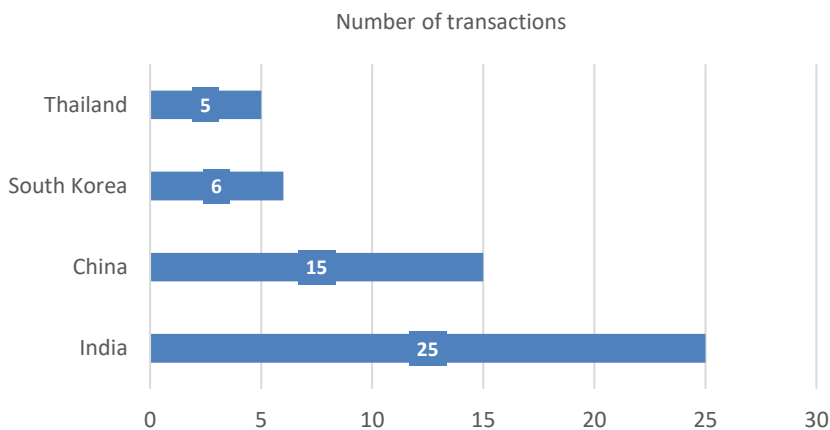


Figure 1. Number of NFC payments for 2020

Sources: developed by the authors based on (Statgraphics, 2021).

It should be noted that the use of NFC technology, according to scientists and experts, can be a source of problems associated with the leakage of personal data in the business sector. The main threats when using NFC technology are: eavesdropping (attackers "listen" to the air of devices during the NFC-transaction), data modification, MitM-attack (a situation where the cryptanalyst is maliciously able to read and modify at will the messages exchanged by correspondent none of the latter can guess its presence in the channel), theft of the device and errors in the program code. Electronic device security experts have also proven the vulnerability of NFC tags. They used the NFC tag to redirect victims' smartphones to malicious websites through the Android Beam app. This led to the redirection of electronic payments from the legitimate recipient site to sites that received payment illegally. In this context, the issue of coverage of online payments for the security of

digitalization of entire enterprises is becoming important. In the conditions of the growing market of use of innovative technologies it is necessary to solve a problem of safety of use of NFC-labels in the field of small business for the purpose of preservation and increase of level of protection of business interests.

In this regard, for the development of digitalization of business it is necessary to pay much attention to the problem of information education of entrepreneurs, technical support for digitalization of business processes and legal protection of business structures.

References

- Alrawais, A. (2020). Security Issues in Near Field Communications (NFC). *International Journal of Advanced Computer Science and Applications*, Vol. 11, No. 11. https://thesai.org/Downloads/Volume11No11/Paper_76-Security_Issues_in_Near_Field_Communications.pdf
- Arora, S. (2019). Customer Behaviour-Online Travel Industry in India. *SocioEconomic Challenges*, 3(1), 90-98. [http://doi.org/10.21272/sec.3\(1\).90-98.2019](http://doi.org/10.21272/sec.3(1).90-98.2019).
- Bozhenko, V. (2021). Enhancing Business Integrity as a Mechanism for Combating Corruption and Shadow Schemes in the Country. *Business Ethics and Leadership*, 5(3), 97-101. [https://doi.org/10.21272/bel.5\(3\).97-101.2021](https://doi.org/10.21272/bel.5(3).97-101.2021)
- Bublyk, M., Koval, V., Redkva, O. (2017). Analysis impact of the structural competition preconditions for ensuring economic security of the machine building complex. *Marketing and Management of Innovations*, 4, 229-240, <http://doi.org/10.21272/mmi.2017.4-20>
- Chukwu, A.O., Kasztelnik, K. (2021). Innovative Strategies For Social-Economic Development Financial Strategies In The Development Country. *SocioEconomic Challenges*, 5(1), 44-65. [https://doi.org/10.21272/sec.5\(1\).44-65.2021](https://doi.org/10.21272/sec.5(1).44-65.2021)
- Dudchenko, V.Yu. (2020). Interaction of Central Bank Independence and Transparency: Bibliometric Analysis. *Business Ethics and Leadership*, 4(2), 109-115. [https://doi.org/10.21272/bel.4\(2\).109-115.2020](https://doi.org/10.21272/bel.4(2).109-115.2020).
- Eddassi, H. (2020). Fiscal Regime and Tax Policy in Resource-Rich Countries In The Process Of Globalization: Literature Review. *SocioEconomic Challenges*, 4(2), 67-77. [https://doi.org/10.21272/sec.4\(2\).67-77.2020](https://doi.org/10.21272/sec.4(2).67-77.2020).
- Fila, M., Levicky, M., Mura, L., Maros, M., & Korenkova, M. (2020). Innovations for Business Management: Motivation and Barriers. *Marketing and Management of Innovations*, 4, 266-278. <http://doi.org/10.21272/mmi.2020.4-22>
- Gallo, P., Mihalcova, B., Vegsoova, O., Dzurov-Vargova, T & Busova, N. (2019). Innovative Trends in Human Resources Management: Evidence for the Health Care System. *Marketing and Management of Innovations*, 2, 11-20. <http://doi.org/10.21272/mmi.2019.2-01>

- Goncharenko, T., Lopa L. (2020). Balance Between Risk And Profit In The Context Of Strategic Management: The Case Of Ukrainian Banks. *SocioEconomic Challenges*, 4(1), 111-121. [http://doi.org/10.21272/sec.4\(1\).111-121.2020](http://doi.org/10.21272/sec.4(1).111-121.2020).
- Kryvyich, Y., Goncharenko, T. (2020). Banking strategic management and business model: bibliometric analysis. *Financial Markets, Institutions and Risks*, 4(1), 76-85. [http://doi.org/10.21272/fmir.4\(1\).76-85.2020](http://doi.org/10.21272/fmir.4(1).76-85.2020).
- Lazorenko, V., Saher, L., & Jasniewski, J. (2021). Web management as a marketing management determinant: case for pharmaceutical enterprises. *Health Economics and Management Review*, 2(2), 105-114. <https://doi.org/10.21272/hem.2021.2-10>
- Mamay, A., Myroshnychenko, I., & Dzwigol. H. (2021). Motivation management model and practical realization within the health care institutions. *Health Economics and Management Review*, 2(2), 23-30. <https://doi.org/10.21272/hem.2021.2-03>
- Matsenko, O., Kubatko, O., Bardachenko, V., & Demchuk, K. (2021). Transformation of the Restaurant Business as a Result of the COVID-19 Pandemic: Improving the Security of Service and Maintaining the Health of Human Capital. *Health Economics and Management Review*, 2(3), 27-38. <https://doi.org/10.21272/hem.2021.3-03>
- Mazurenko, O., Tiutiunyk, I. (2021). The International Tax Competitiveness: Bibliometric Analysis. *Financial Markets, Institutions and Risks*, 5(1), 126-138. [https://doi.org/10.21272/fmir.5\(1\).126-138.2021](https://doi.org/10.21272/fmir.5(1).126-138.2021)
- Mazurenko, O., Tiutiunyk, I., Derkach, L. (2021). The Impact of Tax Morality on Tax Evasion: Evidence of EU Countries. *Business Ethics and Leadership*, 5(3), 108-112. [https://doi.org/10.21272/bel.5\(3\).108-112.2021](https://doi.org/10.21272/bel.5(3).108-112.2021)
- Medani P. Bhandari (2019). Sustainable Development: Is This Paradigm The Remedy of All Challenges? Does Its Goals Capture The Essence of Real Development and Sustainability? With Reference to Discourses, Creativeness, Boundaries and Institutional Architecture. *SocioEconomic Challenges*, 3(4), 97-128. [http://doi.org/10.21272/sec.3\(4\).97-128.2019](http://doi.org/10.21272/sec.3(4).97-128.2019).
- Oleksich, Zh., Polcyn, J., & Shtorgin, O. (2021). Adaptation of the best European practices in administering local health care institutions. *Health Economics and Management Review*, 2(2), 15-22. <https://doi.org/10.21272/hem.2021.2-02>
- Pimonenko, T., Us, Ya., Myroshnychenko, Yu., Dubyna, O., Vasylyna, T. (2021). Green Financing for Carbon-Free Growth: Role of Banks Marketing Strategy. *Financial Markets, Institutions and Risks*, 5(3), 71-78. [https://doi.org/10.21272/fmir.5\(3\).71-78.2021](https://doi.org/10.21272/fmir.5(3).71-78.2021)
- Samoilikova, A. (2020). Financial Policy of Innovation Development Providing: The Impact Formalization. *Financial Markets, Institutions and Risks*, 4(2), 5-15. [https://doi.org/10.21272/fmir.4\(2\).5-15.2020](https://doi.org/10.21272/fmir.4(2).5-15.2020).

- Security Risks of Near Field Communication (2017). Near Field Communication. Available at: <http://nearfieldcommunication.org/nfc-security-risks.html>
- Shkarlet, S., Kholiavko, N., Dubyna, M. (2019). Information Economy: Management of Educational, Innovation, and Research Determinants. *Marketing and Management of Innovations*, 3, 126-141. <http://doi.org/10.21272/mmi.2019.3-10>
- Sineviciene, L., Shkarupa, O., Sysoyeva, L. (2018). Socio-economic and Political Channels for Promoting Innovation as a Basis for Increasing the Economic Security of the State: Comparison of Ukraine and the Countries of the European Union. *SocioEconomic Challenges*, 2(2), 81-93. DOI: 10.21272/sec.2(2).81-93.2018
- Starchenko, L.V., Samusevych, Ya., Demchuk, K. (2021). Social and Eco-Friendly Entrepreneurship: The Keys to Sustainability. *Business Ethics and Leadership*, 5(1), 118-126. [https://doi.org/10.21272/bel.5\(1\).118-126.2021](https://doi.org/10.21272/bel.5(1).118-126.2021)
- Statgraphics (2021). Data Analysis. Available at: <https://www.statista.com/statistics/691585/global-nfc-market-size/>
- Taraniuk, L., D'yakonova, I., Taraniuk, K., & Qiu, H. (2020). Basic financing principles of anti-covid measures: the case of the bank for international settlements. *Health Economics and Management Review*, 1(2), 43-50. <https://doi.org/10.21272/hem.2020.2-05>
- Vasileva, T., Lieonov, S., Makarenko, I., Sirkovska, N. (2017). Sustainability information disclosure as an instrument of marketing communication with stakeholders: markets, social and economic aspects. *Marketing and Management of Innovations*, 4, 350 – 357. <http://doi.org/10.21272/mmi.2017.4-31>
- Yarovenko, H., Kuzmenko, O., Stumpo, M. (2020). Strategy for Determining Country Ranking by Level of Cybersecurity. *Financial Markets, Institutions and Risks*, 4(3), 124-137. [https://doi.org/10.21272/fmir.4\(3\).124-137.2020](https://doi.org/10.21272/fmir.4(3).124-137.2020)
- Yelnikova, Ju., Barhaq, A.R. (2020). Transparency of Responsible Investment Environment. *Business Ethics and Leadership*, 4(4), 68-75. [https://doi.org/10.21272/bel.4\(4\).68-75.2020](https://doi.org/10.21272/bel.4(4).68-75.2020)
- Ziabina, Ye., Pimonenko, T., Starchenko, L. (2020). Energy Efficiency Of National Economy: Social, Economic And Ecological Indicators. *SocioEconomic Challenges*, 4(4), 160-174. [https://doi.org/10.21272/sec.4\(4\).160-174.2020](https://doi.org/10.21272/sec.4(4).160-174.2020)

BASIC APPROACHES TO MANAGING THE ECONOMIC STABILITY OF ENTERPRISES

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Nowadays, it is very important to analyze the concepts of "stability of systems", "economic stability" and "management of economic stability". The right and clearly chosen approaches to managing the sustainability of economic systems ensure the effective functioning of economic relations and the creation of investment potential in the country. Every day, the stability of economic systems is becoming more important, because it depends on the effective functioning of all industries, the competitiveness of enterprises in the markets and so on (Shkarlet et al., 2019; Vasileva et al., 2017; Bublyk et al., 2017; Fila et al., 2020; Gallo et al., 2019).

The concept of economic stability, when viewed from the standpoint of enterprises, means the ability of the system to maintain its working condition to achieve the planned results in the presence of various disturbances (Mazurenko et al., 2021; Bozhenko, 2021; Starchenko et al., 2021; Dudchenko, 2020; Yelnikova and Barhaq, 2020; Pimonenko et al., 2021; Kryvych and Goncharenko, 2020; Matsenko et al., 2021; Lazorenko et al., 2021; Oleksich et al., 2021; Mamay et al., 2021; Taraniuk et al., 2020). Without it, it is impossible to organize economic growth and efficient existence of the enterprise. To achieve a stable state, the enterprise, which is an open socio-economic system, must have the ability to reflect the negative impact of external and internal environmental factors, aimed at changing the stability of the enterprise as a system.

Also, prominent scientists note that the economic stability of enterprises is the ability to withstand various negative economic influences, the ability to adapt to them, to use them with the greatest effect on enterprises (Maslenko, 2002; Goncharenko and Lopa, 2020; Eddassi, 2020; Ziabina et al., 2020; Chukwu and Kasztelnik, 2021; Medani and Bhandari, 2019; Samoilkova, 2020; Yarovenko et al., 2020; Mazurenko and Tiutiunyk, 2021).

To ensure the economic stability of the enterprise it is necessary to identify problems and threats that are inherent in the management process. Nowadays, many companies are on the verge of bankruptcy due to the fact that they failed to structure the management of economic stability. We can say that here you need to be able to properly balance all the processes that will help the company to function effectively.

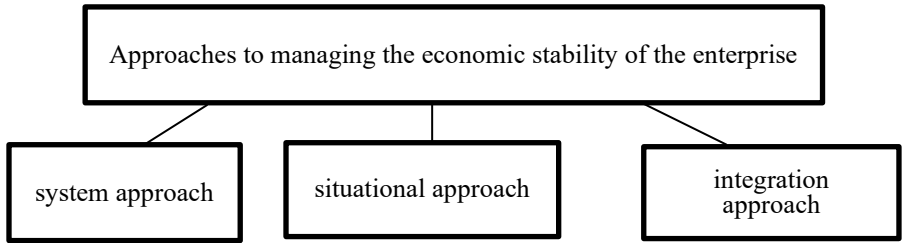


Figure 1 – Approaches to managing the economic stability of the enterprise (Kozlovskiy, 2017)

Thus, the practice of implementing the concepts of sustainable development allows us to identify the following basic approaches to managing economic sustainability (Illustration 1). The first approach, namely the system approach, explains to us economic stability as a set of interconnected components that create a balanced development through the optimal quantitative relationships between the elements of the system and the formation of stable structural relationships between them. We can conclude that this approach ensures the coherence of all structural elements and forms a holistic system in a changing environment. Thus, the systems approach reveals the essence of the phenomenon as an independent system of a certain order, with different structures of relations with other economic systems and develops synthetic and analytical indicators that characterize the quantitative side of phenomena and processes in inseparable connection with their qualitative parameters.

The situational approach helps us to identify patterns of economic stability in space and time and to build a structure of management actions to ensure a dynamic balance in a certain period of time and in a particular market situation. It should be noted here that in this approach, economic stability is seen as a temporary phenomenon that is achieved in the process of constant interaction with the external environment. This approach tries to determine what are the significant variables of the situation and how they affect the effectiveness of the organization. Quantitative parameters that have been accumulated in the process of evolution change the qualitative characteristics of our system, and therefore there is a destruction of the internal consistency of the system. The imbalance is replaced by the creation of new stable proportions, and at the same time provides an economic systemic transition to a new effective level of development.

As for the integration approach, it is a set of economic systems of micro, meso and macro level. Speaking of this approach, we can say that it is an approach to the study of economic processes from the point of view of the modern economic system, which is a set of economic systems of different levels: the state, regions, industries and so on. Objective process of development of deep, stable interrelations and

division of labor between national economies, creation of international economic complexes within the state (Arefieva, 2008).

Summing up, I would like to note that it is important to properly organize management actions and management process, based on the above approaches. Economic sustainability attracts a lot of attention, and must be constantly in the mind of the manager, as it is a continuous process that is interconnected with the whole enterprise. Economic sustainability management means the use of organizational, economic and social methods in order to direct them to the economic sustainability of the enterprise.

References

- Arefieva, O.V. (2008), "The economic stability of the enterprise: essence, constituents and measures to ensure it", *Actualnie problem economici*, vol. 8, pp. 83—90.
- Burda, V. (2021). Enhancing Business Integrity as a Mechanism for Combating Corruption and Shadow Schemes in the Country. *Business Ethics and Leadership*, 5(3), 97-101. [https://doi.org/10.21272/bel.5\(3\).97-101.2021](https://doi.org/10.21272/bel.5(3).97-101.2021)
- Bublyk, M., Koval, V., Redkva, O. (2017). Analysis impact of the structural competition preconditions for ensuring economic security of the machine building complex. *Marketing and Management of Innovations*, 4, 229-240, <http://doi.org/10.21272/mmi.2017.4-20>
- Burda, A.I. (2009), "Methodological approaches to assessing the impact of the components of the triad potential for sustainable development of enterprises", *Naukoviy visnik NLTY*, vol. 19/12, pp. 141—153.
- Chukwu, A.O., Kasztelnik, K. (2021). Innovative Strategies For Social-Economic Development Financial Strategies In The Development Country. *SocioEconomic Challenges*, 5(1), 44-65. [https://doi.org/10.21272/sec.5\(1\).44-65.2021](https://doi.org/10.21272/sec.5(1).44-65.2021)
- Dudchenko, V.Yu. (2020). Interaction of Central Bank Independence and Transparency: Bibliometric Analysis. *Business Ethics and Leadership*, 4(2), 109-115. [https://doi.org/10.21272/bel.4\(2\).109-115.2020](https://doi.org/10.21272/bel.4(2).109-115.2020).
- Eddassi, H. (2020). Fiscal Regime and Tax Policy in Resource-Rich Countries In The Process Of Globalization: Literature Review. *SocioEconomic Challenges*, 4(2), 67-77. [https://doi.org/10.21272/sec.4\(2\).67-77.2020](https://doi.org/10.21272/sec.4(2).67-77.2020).
- Fila, M., Levicky, M., Mura, L., Maros, M., & Korenkova, M. (2020). Innovations for Business Management: Motivation and Barriers. *Marketing and Management of Innovations*, 4, 266-278. <http://doi.org/10.21272/mmi.2020.4-22>
- Gallo, P., Mihalcova, B., Vegsoova, O., Dzurov-Vargova, T & Busova, N. (2019). Innovative Trends in Human Resources Management: Evidence for the Health Care System. *Marketing and Management of Innovations*, 2, 11-20. <http://doi.org/10.21272/mmi.2019.2-01>

- Goncharenko, T., Lopa L. (2020). Balance Between Risk And Profit In The Context Of Strategic Management: The Case Of Ukrainian Banks. *SocioEconomic Challenges*, 4(1), 111-121. [http://doi.org/10.21272/sec.4\(1\).111-121.2020](http://doi.org/10.21272/sec.4(1).111-121.2020).
- Kozlovskiy S. (2017), Ensuring the stability of the modern economic system is the basis of economic development of the state, investments: practice and experience № 1/2017.
- Kryvych, Y., Goncharenko, T. (2020). Banking strategic management and business model: bibliometric analysis. *Financial Markets, Institutions and Risks*, 4(1), 76-85. [http://doi.org/10.21272/fmir.4\(1\).76-85.2020](http://doi.org/10.21272/fmir.4(1).76-85.2020).
- Lazorenko, V., Saher, L., & Jasniewski, J. (2021). Web management as a marketing management determinant: case for pharmaceutical enterprises. *Health Economics and Management Review*, 2(2), 105-114. <https://doi.org/10.21272/hem.2021.2-10>
- Mamay, A., Myroshnychenko, Iu., & Dzwigol. H. (2021). Motivation management model and practical realization within the health care institutions. *Health Economics and Management Review*, 2(2), 23-30. <https://doi.org/10.21272/hem.2021.2-03>
- Maslenko, U.V. (2002), "Sustainable development of the company — a factor of economic security", available at: <http://masters.donntu.edu.ua/2002/fem/kulbaka/lib/s3.htm> (Accessed 20 Dec 2016).
- Matsenko, O., Kubatko, O., Bardachenko, V., & Demchuk, K. (2021). Transformation of the Restaurant Business as a Result of the COVID-19 Pandemic: Improving the Security of Service and Maintaining the Health of Human Capital. *Health Economics and Management Review*, 2(3), 27-38. <https://doi.org/10.21272/hem.2021.3-03>
- Mazurenko, O., Tiutiunyk, I. (2021). The International Tax Competitiveness: Bibliometric Analysis. *Financial Markets, Institutions and Risks*, 5(1), 126-138. [https://doi.org/10.21272/fmir.5\(1\).126-138.2021](https://doi.org/10.21272/fmir.5(1).126-138.2021)
- Mazurenko, O., Tiutiunyk, I., Derkach, L. (2021). The Impact of Tax Morality on Tax Evasion: Evidence of EU Countries. *Business Ethics and Leadership*, 5(3), 108-112. [https://doi.org/10.21272/bel.5\(3\).108-112.2021](https://doi.org/10.21272/bel.5(3).108-112.2021)
- Medani P. Bhandari (2019). Sustainable Development: Is This Paradigm The Remedy of All Challenges? Does Its Goals Capture The Essence of Real Development and Sustainability? With Reference to Discourses, Creativeness, Boundaries and Institutional Architecture. *SocioEconomic Challenges*, 3(4), 97-128. [http://doi.org/10.21272/sec.3\(4\).97-128.2019](http://doi.org/10.21272/sec.3(4).97-128.2019).
- Oleksich, Zh., Polcyn, J., & Shtorgin, O. (2021). Adaptation of the best European practices in administering local health care institutions. *Health Economics and Management Review*, 2(2), 15-22. <https://doi.org/10.21272/hem.2021.2-02>
- Pimonenko, T., Us, Ya., Myroshnychenko, Yu., Dubyna, O., Vasylyna, T. (2021). Green Financing for Carbon-Free Growth: Role of Banks Marketing Strategy.

- Financial Markets, Institutions and Risks, 5(3), 71-78.
[https://doi.org/10.21272/fmir.5\(3\).71-78.2021](https://doi.org/10.21272/fmir.5(3).71-78.2021)
- Samoilikova, A. (2020). Financial Policy of Innovation Development Providing: The Impact Formalization. *Financial Markets, Institutions and Risks*, 4(2), 5-15.
[https://doi.org/10.21272/fmir.4\(2\).5-15.2020](https://doi.org/10.21272/fmir.4(2).5-15.2020).
- Shkarlet, S., Kholiavko, N., Dubyna, M. (2019). Information Economy: Management of Educational, Innovation, and Research Determinants. *Marketing and Management of Innovations*, 3, 126-141.
<http://doi.org/10.21272/mmi.2019.3-10>
- Starchenko, L.V., Samusevych, Ya., Demchuk, K. (2021). Social and Eco-Friendly Entrepreneurship: The Keys to Sustainability. *Business Ethics and Leadership*, 5(1), 118-126. [https://doi.org/10.21272/bel.5\(1\).118-126.2021](https://doi.org/10.21272/bel.5(1).118-126.2021)
- Taraniuk, L., D'yakonova, I., Taraniuk, K., & Qiu, H. (2020). Basic financing principles of anti-covid measures: the case of the bank for international settlements. *Health Economics and Management Review*, 1(2), 43-50.
<https://doi.org/10.21272/hem.2020.2-05>
- Vasilieva, T., Lieonov, S., Makarenko, I., Sirkovska, N. (2017). Sustainability information disclosure as an instrument of marketing communication with stakeholders: markets, social and economic aspects. *Marketing and Management of Innovations*, 4, 350 – 357. <http://doi.org/10.21272/mmi.2017.4-31>
- Yarovenko, H., Kuzmenko, O., Stumpo, M. (2020). Strategy for Determining Country Ranking by Level of Cybersecurity. *Financial Markets, Institutions and Risks*, 4(3), 124-137. [https://doi.org/10.21272/fmir.4\(3\).124-137.2020](https://doi.org/10.21272/fmir.4(3).124-137.2020)
- Yelnikova, Ju., Barhaq, A.R. (2020). Transparency of Responsible Investment Environment. *Business Ethics and Leadership*, 4(4), 68-75.
[https://doi.org/10.21272/bel.4\(4\).68-75.2020](https://doi.org/10.21272/bel.4(4).68-75.2020)
- Ziabina, Ye., Pimonenko, T., Starchenko, L. (2020). Energy Efficiency Of National Economy: Social, Economic And Ecological Indicators. *SocioEconomic Challenges*, 4(4), 160-174. [https://doi.org/10.21272/sec.4\(4\).160-174.2020](https://doi.org/10.21272/sec.4(4).160-174.2020)

DIGITAL MARKETING FOR SMALL AND MEDIUM BUSINESS

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The current business addresses more digital marketing instruments. In turn, the traditional ones stay behind. It is appropriate to highlight that digital marketing helps businesses achieve maximum return on investment (Bilan et al., 2020; Chygryn et al., 2020; Elsayed, 2021; Khomenko et al., 2020; Kibaroglu, 2020; Minchenko et al., 2020; Mirdamad, 2020; Lyulyov et al., 2020; Palienko et al., 2017; Burlakova et al., 2013). Moreover, by applying new and highly effective methods, such as targeted advertising, the impact on potential consumers increased while costs decreased. As a result, small and medium-sized businesses could scale quickly. Targeted advertising allows hitting the target audience. At the same time, even classic advertising has its segment but is broadcast to all.

Generally, targeted advertising is defined as advertising on social networks such as Facebook or Instagram. It stands to note that it provides an accurate display of advertising (Dubina et al., 2020). Thus, it has a more significant impact on the loyalty of potential consumers. The absence of territorial restrictions, active involvement of consumers in interaction with the brand and easy access to the resource allows reaching more consumers and reduce the advertising cost.

Besides, detailed targeting forms a target audience concerning the particular consumer interests. Thus, advertising is shown only to those users who satisfy all target requirements. For example, in the case of a women's clothing store, there are options to choose the audience based on such interests as women's clothing, dress, fashion, stylish clothes. These interests form an audience that could be adjusted. After establishing the audience and selecting advertising placements, it is necessary to set up an advertisement section.

Summarization of the scientific findings allowed concluding that targeted advertising is used to attract, sell, show, broadcast, and inform (Pavlenko et al., 2020; Melnyk et al., 2018; Kostetskyi, 2021; Chygryn, 2017; Lyulyov et al., 2019; Minchenko and Ivanov, 2020; Novikov, 2021). Effective marketing allows getting cheap customers for almost any business using different sales funnels and advertising goals (from traffic on Instagram to Conversions on a landing page) (Vasilyeva et al., 2020; Syhyda et al., 2018; Pimonenko et al., 2018b; Rosokhata et al., 2020; Pimonenko et al., 2019a; Syhyda and Illiashenko, 2016; Pimonenko et al.,

2016). Noteworthy here, such brands as AUDI, BMW, Mercedes, Louis Vuitton, and Gucci use targeted advertising to reach even more potential customers.

However, it stands to emphasize that not all businesses could use targeting. For example, Rolls-Royce Motor Cars Limited isn't advisable to use targeting because their customers do not look for quality and expensive cars on the social network. For this campaign, it is better to use another sales funnel, for example, through a website offering to take a test drive. It is essential to test different hypotheses and advertising communication types. Indeed, targeted advertising involves testing to achieve maximum effect from the advertising campaign. Before running the advertising campaign, it is necessary to develop ads that match the placement format (Akhundova et al., 2020; Pimonenko et al., 2019b; Urbánné, 2020; Pimonenko et al., 2021; Yula et al., 2020; Pimonenko et al., 2017a; Ziabina et al., 2020; Pimonenko et al., 2017c; Ziabina et al., 2021). Notably, 1080/1080 is a feed format, 1920/1080 – a video or photo advertising format in stories. In the target advertisement, it is advisable to display the product or describe the service, provide an offer and make a call to action. For example, it could be a picture of a girl in women's clothes, a written offer, free delivery, and a call to action "Buy now".

Therefore, advertisement is the first thing a user faces (Us et al., 2020; Thomas, 2020; Starchenko, 2020; Pimonenko et al., 2018a; Rosokhata and Chykalova, 2020; Saher et al., 2018; Skrynnyk, 2020; Pimonenko et al., 2017b). If it gets directly into the client's pain points or, conversely, gives a solution to a problem, the client would interact with the company advertisement and most probably use the service or buy the product. In turn, when the potential client only visited the main web page and quit, it is appropriate to use retargeting. It raises the possibility to return the client showing the services or goods in another way. Therefore, the user is more likely to become a customer.

The obtained results of this study showed that targeted advertising works in small and medium-sized businesses. At the same time, advertising efficiency depends on the selected target audience's accuracy and the construction of an interaction system.

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References

Akhundova, N., Pimonenko, T., Us, Ya., (2020). Sustainable growth and country green brand: visualization and analysis of mapping knowledge (Book of

- Proceedings), 55th International Scientific Conference on Economic and Social Development – *"Economic and Social Development"*, Baku, 18-19 June 2020, P. 234–243.
- Bilan, Y., Pimonenko, T., & Starchenko, L. (2020). Sustainable business models for innovation and success: bibliometric analysis. In *E3S Web of Conferences* (Vol. 159, p. 04037). EDP Sciences.
- Burlakova, I. M., Kubatko, O. V., & Ziabina Ye, I. (2013). Ecologo-economic potential of biogas plants in agriculture. *Visnyk Sums' koho derzhavnoho universytetu. Ser.: Ekonomika*, (4), 19-25.
- Chygryn O., Bilan Y., Kwilinski A. (2020). Stakeholders of Green Competitiveness: Innovative Approaches for Creating Communicative System. *Marketing and Management of Innovations*, 3, 358–370.
- Chygryn, O. (2017). Green entrepreneurship: EU experience and Ukraine perspectives. *Centre for Studies in European Integration Working Papers Series*, (6), 6-13.
- Dubina, O., Us, Y., Pimonenko, T., & Lyulyov, O. (2020). Customer Loyalty to Bank Services: The Bibliometric Analysis. *Virtual Economics*, 3(3), 52-66. [https://doi.org/10.34021/ve.2020.03.03\(3\)](https://doi.org/10.34021/ve.2020.03.03(3))
- Elsayed Fayed, A. (2021). Artificial Intelligence for Marketing Plan: the Case for E-marketing Companies. *Marketing and Management of Innovations*, 1, 81-95. <http://doi.org/10.21272/mmi.2021.1-07>
- Khomenko L., Saher L., Polcyn J. (2020). Analysis of the Marketing Activities in the Blood Service: Bibliometric Analysis. *Health Economics and Management Review*, 1, 20-36. DOI: 10.21272/hem.2020.1-02
- Kibaroglu, O. (2020). Self Sovereign Digital Identity on the Blockchain: A Discourse Analysis. *Financial Markets, Institutions and Risks*, 4(2), 65-79. [https://doi.org/10.21272/fmir.4\(2\).65-79.2020](https://doi.org/10.21272/fmir.4(2).65-79.2020).
- Kostetskyi, P. (2021). Does Digitalization Lead to Better Transparency: Bibliometric Approach. *Business Ethics and Leadership*, 5(3), 102-107. [https://doi.org/10.21272/bel.5\(3\).102-107.2021](https://doi.org/10.21272/bel.5(3).102-107.2021)
- Lyulyov, O., Pimonenko, T., Stoyanets, N., & Letunovska, N. (2019). Sustainable development of agricultural sector: Democratic profile impact among developing countries. *Res. World Econ*, 10, 97-105.
- Lyulyov, O., Us, Y., Pimonenko, T., Kwilinski, A., Vasylieva, T., Dalevska, N., Polchun, J., & Boiko, V. The Link Between Economic Growth and Tourism: Covid-19 Impact. *Proceedings of the 36th International Business Information Management Association (IBIMA)*, ISBN: 978-0-9998551- 5-7, 4-5 November 2020, Granada, Spain, p. 8070-8086.
- Melnyk Yu.M., Saher L.Yu., Niño-Amézquita J. (2018). The problems of development of an effective management system of internal communications and ways to overcome them. *nnovative management: theoretical, methodical, and*

- applied grounds / S.M. Illiashenko, W. Strielkowski (eds.). 1st edition. Prague: Prague Institute for Qualification Enhancement, 176-189.
- Minchenko, M., Artyukhova, N., Zdoima, A. (2020). Effective models for promoting goods through social networks / Innovation, Social and Economic Challenges : the International Scientific Online Conference (Sumy, December 1-3, 2020), 45-48
- Minchenko, M., Ivanov O. (2020). Application of content marketing in the formation of marketing strategy of territorial communities / Innovation, Social and Economic Challenges : the International Scientific Online Conference (Sumy, December 1-3, 2020), 35-38
- Mirdamad, M. G. (2020). Innovative Tools for Investment Management in the Digital Economy: a Guide for Post-Socialist Countries. Marketing and Management of Innovations, 4, 181-190. <http://doi.org/10.21272/mmi.2020.4-14>
- Novikov, V.V. (2021). Digitalization of Economy and Education: Path to Business Leadership and National Security. *Business Ethics and Leadership*, 5(2), 147-155. [https://doi.org/10.21272/bel.5\(2\).147-155.2021](https://doi.org/10.21272/bel.5(2).147-155.2021)
- Palienko, M., Lyulyov, O., & Denysenko, P. (2017). Fiscal Decentralisation as a Factor of Macroeconomic Stability of the Country. *Financial markets, institutions and risks*, (1, Is. 4), 74-86.
- Pavlenko, D., Kubatko, O., Ziabina, Y. (2020). Economic, Social and Technological Factors of Startup's Success. Mechanism of Economic Regulation, 1, 64-74. DOI: <https://doi.org/10.21272/mer.2020.87.05>.
- Pimonenko T., Lyulyov O., Chygyryn O. Маркетинг зелених інвестицій: механізм колаборації між основними стейкхолдерами //Вісник приазовського державного технічного університету. Серія: економічні науки. – 2018а. – Т. 1. – №. 36. – С. 214-220.
- Pimonenko, T., Liuliov, O., & Us, Y. (2019a). Marketing strategies of green investments: basic concepts and specific features. Herald of Ternopil National Economic University, (1 (91)), 177-185.
- Pimonenko, T., Lyulyov, O., & Chygyryn, O. (2019b). Company's image and greenwashing in the framework of green investment concept. Науковий вісник Одеського національного економічного університету, (2), 143-157.
- Pimonenko, T., Lyulyov, O., & Us, Y. (2018b). Green development of small and medium enterprises of Ukraine: the eu experience. In *Competitivitatea și Inovarea în Economia Cunoașterii* (Vol. 2, pp. 69-78).
- Pimonenko, T., Lyulyov, O., Us, Ya. (2016). Feed-in tariff like an incentive instrument to enlarge renewable energy using by households. Proceedings of XXII International Scientific Conference "Economics for Ecology ISCS'2016", p. 78-81.
- Pimonenko, T., Lyulyova, L., Us, Ya. (2017c). Energy-efficient house: economic, ecological and social justification in Ukrainian conditions. Environmental

- Economics, 8(4), 53-61. doi:10.21511/ee.08(4).2017.07
- Pimonenko, T., Radchenko, O., Palienko, M. (2017a). Efficiency of marketing communications in banks. *Business Ethics and Leadership*, 1(2), 55-61. Doi: 10.21272/bel.1(2).55-61.2017
- Pimonenko, T., Us, J., Leus, D., & Fedyna, S. (2017b). The modern ecological and economic instruments for sustainable development. *Bulletin of Sumy State University. Economy Ser*, 2, 57-67.
- Pimonenko, T., Us, Ya., Myroshnychenko, Yu., Dubyna, O., Vasylyna, T. (2021). Green Financing for Carbon-Free Growth: Role of Banks Marketing Strategy. *Financial Markets, Institutions and Risks*, 5(3), 71-78. [https://doi.org/10.21272/fmir.5\(3\).71-78.2021](https://doi.org/10.21272/fmir.5(3).71-78.2021)
- Rosokhata, A., Chykalova, A. (2020). Marketing activities features for different classification types of business structures. *Socio-Economic Challenges : Proceedings of the International Scientific and and Practical Conference*, Sumy, November 3–4, 2020 / edited by Prof., Dr. Vasilyeva Tetyana. – Sumy : Sumy State University, 317-322
- Rosokhata, A., Rybina O., Derykolenko, A., & Makerska, V. (2020). Improving the Classification of Digital Marketing Tools for the Industrial Goods Promotion in the Globalization Context. *Research in World Economy*, 11 (4), Special Issue, 42-52. doi:10.5430/rwe.v11n4p42.
- Saher L.Yu., Syhyda L.O., Gryshova I. (2018). Current state and prospects for the development of innovative activity of industrial enterprises in Ukraine and the world. *Innovative management: theoretical, methodical, and applied grounds* / S.M. Illiashenko, W. Strielkowski (eds.). 1st edition. Prague: Prague Institute for Qualification Enhancement, 83-95.
- Skrynnyk, O. (2020). Some Aspects of Information Security in Digital Organizational Management System. *Marketing and Management of Innovations*, 4, 279-289. <http://doi.org/10.21272/mmi.2020.4-23>
- Starchenko, L. (2020). Impact of gender aspects of sustainable entrepreneurship on country innovative development. *Marketing and Management of Innovations*, 4, 304-311. <http://doi.org/10.21272/mmi.2020.4-25>
- Syhyda L.O., Illiashenko S.M. (2016). The specificity of the marketing distribution policy; diagnostic procedures in the enterprise. *MIND Journal*. №2.
- Syhyda L.O., Saher L.Yu., Gryshova I. (2018). Current state and prospects for the development of innovative activity of industrial enterprises in Ukraine and the world. Illiashenko, S.M., Strielkowski, W. (eds.). *Innovative Management: theoretical, methodical and applied grounds*. 1st edition, Prague Institute for Qualification Enhancement: Prague, P. 83-96

- Thomas, G. (2020). Data Usage in Talent Management – Challenges for SMEs in the Field of Skilled Crafts. *SocioEconomic Challenges*, 4(1), 75-81. [http://doi.org/10.21272/sec.4\(1\).75-81.2020](http://doi.org/10.21272/sec.4(1).75-81.2020).
- Urbáné Treutz Ágnes (2020). Transformation of Z-Generation in the context of globalization and place marketing: the case of Hungarian students. *SocioEconomic Challenges*, 4(1), 28-35. [http://doi.org/10.21272/sec.4\(1\).28-35.2020](http://doi.org/10.21272/sec.4(1).28-35.2020).
- Us, Ya., Pimonenko, T., Tambovceva, T., & Segers, J-P. (2020). Green transformations in the healthcare system: the covid-19 impact. *Health Economics and Management Review*, 1(1), 48-59. <https://doi.org/10.21272/hem.2020.1-04>
- Vasilyeva T. A., Lyeonov S. V., & Letunovska N. Y. (2020). The economic impact of COVID-19: forecasting for Ukrainian regions. *Socio-Economic Challenges: Proceedings of the International Scientific and Practical Conference*, Sumy, November 3–4, 2020. Sumy: Sumy State University. P. 18-22. R
- Yula, Yu., Pushko, O., & Palienko, M. (2020). Recommendations for improving the hospital's marketing policy. *Health Economics and Management Review*, 1(2), 91-99. <https://doi.org/10.21272/hem.2020.2-10>
- Ziabina Ye. A., Pimonenko T. V., Lyulyov O. V. Efficiency of Ukrainian energy policy in the framework of circular and carbon-free economy // *Socio-Economic Challenges : Proceedings of the International Scientific and Practical Conference*, Sumy, November 3–4, 2020. Sumy, 2020. P. 337-341.
- Ziabina, Y., Pimonenko, T., Lyulyov, O., Us, Y., & Proshkin, D. (2021). Evolutionary development of energy efficiency in the context of the national carbon-free economic development. In *E3S Web of Conferences* (Vol. 307). EDP Sciences.

THE GLOBAL FINANCIAL CRISIS AND ITS IMPACT ON UKRAINE'S ECONOMY

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Against the background of the recent and current global financial crisis traceable to corporate irresponsibility on the part of some financial sector players in developed countries especially the United States of America in the housing and credit markets, many economists and non-economists are raising their voices against globalization of finance. In simple language, globalization of finance is evident as the integration of the financial systems of many countries of the world. On the other hand, the financial crisis describes various negative changes in the financial system evident as the sudden loss of value of assets, banking sector panics, credit crunch, sovereign defaults and stock market crashes among others (Mazurenko et al., 2021; Bozhenko, 2021; Starchenko et al., 2021; Dudchenko, 2020; Yelnikova and Barhaq, 2020; Goncharenko and Lopa, 2020; Eddassi, 2020).

The recent financial crisis has resulted in major losses on the part of individuals and corporate entities and nations even with reports of high-profile businessmen committing suicide following the loss of huge sums of money. This paper thus seeks to look at the problem of the spread and effects of the financial crisis from the scope of one country to another, especially among developing countries.

We can see many views on the causes of the financial crisis and it can include high personal and corporate debt, the inability of homeowners to make mortgage payments, poor sense of judgement by borrowers and lenders, speculation and overbidding during borrowing period, risky mortgage products, complex financial innovation that concealed default risk, lack of proper government regulation. The other important question on the other hand is whether globalization of finance's benefits outweighs the adverse effects (Ziabina et al., 2020; Chukwu and Kasztelnik, 2021; Medani and Bhandari, 2019; Samoilikova, 2020; Yarovenko et al., 2020; Mazurenko and Tiutiunyk, 2021; Pimonenko et al., 2021; Kryvyeh and Goncharenko, 2020; Matsenko et al., 2021; Lazorenko et al., 2021; Oleksich et al., 2021; Mamay et al., 2021; Taraniuk et al., 2020).

The global economic crisis that started in 2008 has engulfed the entire world and has laid waste to the process of globalization that was blamed by many as being the root cause of the crisis.

After the American Investment Bank, Lehmann Brothers filed for Bankruptcy in September 2008, the entire global financial system was at the risk of collapse

because of the integrated and interconnected nature of the global economy.

However, it would not be fair to say that globalization alone is responsible for the crisis and individual governments had a role to play in ensuring that their economies were well regulated and insulated from global shocks (Shkarlet et al., 2019; Vasilieva et al., 2017; Bublyk et al., 2017; Fila et al., 2020; Gallo et al., 2019). This line of thinking holds the view that though the global economy is integrated, a mixture of policies designed to keep the flows of hot money and capital in check and ensuring proper regulation would have gone a long way in insulating the economies of the world from the aftershocks of the global economic crisis. The growth of trade, deliberate removal of barriers and the advancement of technology have led to the integration of the financial systems of nations with each other. This however has both beneficial and adverse consequences depending on what factors are on display at any point in time not minding the present financial crisis in the world.

Globalization, which is promoted by the growth of technology, migration, trade, tourism, currency convertibility and capital account liberalization makes the mobility of capital higher than it has ever been in the history of mankind. Individuals and firms who own idle funds do benefit from the globalization of finance largely through the possibility of reduced risk and improved returns synonymous with global diversification.

There are signs that are used for predicting crisis such as high unemployment, near-bank collapse, and an economic contraction. financial crises occur following either bank runs or a sudden severe drop of asset prices in capital markets, both of which will consequently cause the collapse of big financial and non-financial firms. Using historical data on financial crises around the world, we show that crises are substantially predictable.

The combination of rapid credit and asset price growth over the prior three years, whether in the nonfinancial business or the household sector, is associated with about a 40% probability of entering a financial crisis within the next three years.

Financial crises are substantially predictable byproducts of rapid expansions of credit accompanied by asset price booms that show that rapid credit growth and asset price growth predict banking crises in 34 countries between 1970 and 1999, these are called “early warning indicators”. One critical early warning is “super-exponential growth” in investment returns — 5% in year one, 10% in year two, 20% in year 3, and so on. This was the level of growth that inflated the bubble prior to 2007.

Financial crisis mostly caused by deregulation in the financial industry. That permitted banks to engage in hedge funds then demanded more mortgages to support the profitable sale of these derivatives. For example, in 2007-2009 economic conditions in the United States and other countries were favourable. Economic growth was strong and stable, and rates of inflation, unemployment and interest were relatively low. In this environment, house prices grew strongly. Expectations that

house prices would continue to rise led households, in the United States especially, to borrow imprudently to purchase and build houses. A similar expectation on house prices also led property developers and households in European countries to borrow excessively. Many of the mortgage loans, especially in the United States, were for amounts close to the purchase of a house A large share of such risky borrowing was done by investors seeking to make short-term profits.

References

- Bozhenko, V. (2021). Enhancing Business Integrity as a Mechanism for Combating Corruption and Shadow Schemes in the Country. *Business Ethics and Leadership*, 5(3), 97-101. [https://doi.org/10.21272/bel.5\(3\).97-101.2021](https://doi.org/10.21272/bel.5(3).97-101.2021)
- Bublyk, M., Koval, V., Redkva, O. (2017). Analysis impact of the structural competition preconditions for ensuring economic security of the machine building complex. *Marketing and Management of Innovations*, 4, 229-240, <http://doi.org/10.21272/mmi.2017.4-20>
- Chukwu, A.O., Kasztelnik, K. (2021). Innovative Strategies For Social-Economic Development Financial Strategies In The Development Country. *SocioEconomic Challenges*, 5(1), 44-65. [https://doi.org/10.21272/sec.5\(1\).44-65.2021](https://doi.org/10.21272/sec.5(1).44-65.2021)
- Dudchenko, V.Yu. (2020). Interaction of Central Bank Independence and Transparency: Bibliometric Analysis. *Business Ethics and Leadership*, 4(2), 109-115. [https://doi.org/10.21272/bel.4\(2\).109-115.2020](https://doi.org/10.21272/bel.4(2).109-115.2020).
- Eddassi, H. (2020). Fiscal Regime and Tax Policy in Resource-Rich Countries In The Process Of Globalization: Literature Review. *SocioEconomic Challenges*, 4(2), 67-77. [https://doi.org/10.21272/sec.4\(2\).67-77.2020](https://doi.org/10.21272/sec.4(2).67-77.2020).
- Fila, M., Levicky, M., Mura, L., Maros, M., & Korenkova, M. (2020). Innovations for Business Management: Motivation and Barriers. *Marketing and Management of Innovations*, 4, 266-278. <http://doi.org/10.21272/mmi.2020.4-22>
- Gallo, P., Mihalcova, B., Vegsoova, O., Dzurov-Vargova, T & Busova, N. (2019). Innovative Trends in Human Resources Management: Evidence for the Health Care System. *Marketing and Management of Innovations*, 2, 11-20. <http://doi.org/10.21272/mmi.2019.2-01>
- Goncharenko, T., Lopa L. (2020). Balance Between Risk And Profit In The Context Of Strategic Management: The Case Of Ukrainian Banks. *SocioEconomic Challenges*, 4(1), 111-121. [http://doi.org/10.21272/sec.4\(1\).111-121.2020](http://doi.org/10.21272/sec.4(1).111-121.2020).
- Kryvych, Y., Goncharenko, T. (2020). Banking strategic management and business model: bibliometric analysis. *Financial Markets, Institutions and Risks*, 4(1), 76-85. [http://doi.org/10.21272/fmir.4\(1\).76-85.2020](http://doi.org/10.21272/fmir.4(1).76-85.2020).
- Lazorenko, V., Saher, L., & Jasnikowski, J. (2021). Web management as a marketing management determinant: case for pharmaceutical enterprises. *Health Economics and Management Review*, 2(2), 105-114. <https://doi.org/10.21272/hem.2021.2-10>
- Mamay, A., Myroshnychenko, Iu., & Dzwigol, H. (2021). Motivation management model and practical realization within the health care institutions. *Health Economics and Management Review*, 2(2), 23-30. <https://doi.org/10.21272/hem.2021.2-03>
- Matsenko, O., Kubatko, O., Bardachenko, V., & Demchuk, K. (2021). Transformation of the

- Restaurant Business as a Result of the COVID-19 Pandemic: Improving the Security of Service and Maintaining the Health of Human Capital. *Health Economics and Management Review*, 2(3), 27-38. <https://doi.org/10.21272/hem.2021.3-03>
- Mazurenko, O., Tiutiunyk, I. (2021). The International Tax Competitiveness: Bibliometric Analysis. *Financial Markets, Institutions and Risks*, 5(1), 126-138. [https://doi.org/10.21272/fmir.5\(1\).126-138.2021](https://doi.org/10.21272/fmir.5(1).126-138.2021)
- Mazurenko, O., Tiutiunyk, I., Derkach, L. (2021). The Impact of Tax Morality on Tax Evasion: Evidence of EU Countries. *Business Ethics and Leadership*, 5(3), 108-112. [https://doi.org/10.21272/bel.5\(3\).108-112.2021](https://doi.org/10.21272/bel.5(3).108-112.2021)
- Medani P. Bhandari (2019). Sustainable Development: Is This Paradigm The Remedy of All Challenges? Does Its Goals Capture The Essence of Real Development and Sustainability? With Reference to Discourses, Creativeness, Boundaries and Institutional Architecture. *SocioEconomic Challenges*, 3(4), 97-128. [http://doi.org/10.21272/sec.3\(4\).97-128.2019](http://doi.org/10.21272/sec.3(4).97-128.2019).
- Oleksich, Zh., Polcyn, J., & Shtorgin, O. (2021). Adaptation of the best European practices in administering local health care institutions. *Health Economics and Management Review*, 2(2), 15-22. <https://doi.org/10.21272/hem.2021.2-02>
- Pimonenko, T., Us, Ya., Myroshnychenko, Yu., Dubyna, O., Vasylyna, T. (2021). Green Financing for Carbon-Free Growth: Role of Banks Marketing Strategy. *Financial Markets, Institutions and Risks*, 5(3), 71-78. [https://doi.org/10.21272/fmir.5\(3\).71-78.2021](https://doi.org/10.21272/fmir.5(3).71-78.2021)
- Samoilikova, A. (2020). Financial Policy of Innovation Development Providing: The Impact Formalization. *Financial Markets, Institutions and Risks*, 4(2), 5-15. [https://doi.org/10.21272/fmir.4\(2\).5-15.2020](https://doi.org/10.21272/fmir.4(2).5-15.2020).
- Shkarlet, S., Kholiavko, N., Dubyna, M. (2019). Information Economy: Management of Educational, Innovation, and Research Determinants. *Marketing and Management of Innovations*, 3, 126-141. <http://doi.org/10.21272/mmi.2019.3-10>
- Starchenko, L.V., Samusevych, Ya., Demchuk, K. (2021). Social and Eco-Friendly Entrepreneurship: The Keys to Sustainability. *Business Ethics and Leadership*, 5(1), 118-126. [https://doi.org/10.21272/bel.5\(1\).118-126.2021](https://doi.org/10.21272/bel.5(1).118-126.2021)
- Taraniuk, L., D'yakonova, I., Taraniuk, K., & Qiu, H. (2020). Basic financing principles of anti-covid measures: the case of the bank for international settlements. *Health Economics and Management Review*, 1(2), 43-50. <https://doi.org/10.21272/hem.2020.2-05>
- Vasilieva, T., Lieonov, S., Makarenko, I., Sirkovska, N. (2017). Sustainability information disclosure as an instrument of marketing communication with stakeholders: markets, social and economic aspects. *Marketing and Management of Innovations*, 4, 350 – 357. <http://doi.org/10.21272/mmi.2017.4-31>
- Yarovenko, H., Kuzmenko, O., Stumpo, M. (2020). Strategy for Determining Country Ranking by Level of Cybersecurity. *Financial Markets, Institutions and Risks*, 4(3), 124-137. [https://doi.org/10.21272/fmir.4\(3\).124-137.2020](https://doi.org/10.21272/fmir.4(3).124-137.2020)
- Yelnikova, Ju., Barhaq, A.R. (2020). Transparency of Responsible Investment Environment. *Business Ethics and Leadership*, 4(4), 68-75. [https://doi.org/10.21272/bel.4\(4\).68-75.2020](https://doi.org/10.21272/bel.4(4).68-75.2020)
- Ziabina, Ye., Pimonenko, T., Starchenko, L. (2020). Energy Efficiency Of National Economy: Social, Economic And Ecological Indicators. *SocioEconomic Challenges*, 4(4), 160-174. [https://doi.org/10.21272/sec.4\(4\).160-174.2020](https://doi.org/10.21272/sec.4(4).160-174.2020)

THE IMPACT OF LABOR RESOURCES ON GREEN COMPETITIVENESS AND FINANCIAL STABILITY OF ENTERPRISES

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Research on the impact of human resources on green competitiveness and financial stability of enterprises has begun to gain momentum recently. The first thorough research in this area dates back to 2010-2011.

Thus, scientists (Ou, et al., 2011) have developed a system of indicators for the analysis of green competitiveness in the context of the transition to a green economy (Gouvea, et al., 2013).

It is necessary to pay attention to the meaningful study of competitive strategies of green suppliers in the context of the development of green law (Tsai, et al., 2014).

The authors argue the relationship between the effectiveness of strategic personnel management and the level of competitiveness of small and medium-sized businesses (Akpoviro, et al., 2018; Md Yusuf Hossein Khan, 2018; Ziabina, et al., 2021).

It is also necessary to note the scientific works, which study the impact of staff efficiency in the public sector, the results of which showed the need for additional research in this area, because the existing methods are not very effective in the current reality (Balaraman, et al. 2018; Shipko, et al., 2020; Pavlenko, et al., 2021).

The study of the impact of corporate culture on the efficiency of labor resources in various sectors of the economy is relevant today (Oluwole, 2021; Dave, 2019), as well as the impact of corporate governance on their financial and economic performance and level of competitiveness (Tommaso, & Gulinelli, 2019; Gupta, 2021).

The scientific community is still studying the phenomenon of human capital and its potential and role in shaping the competitiveness of both the individual enterprise and the country as a whole, because all invented technologies, methods, know-how, etc. are the results of the human brain (Zeynalli, 2021; Pimonenko et al., 2018). At the same time, labor resources are considered as one of the innovative tools that affects the level of development of the national economy as a whole (Mazur-Wierzbicka, 2019; Antonyuk, et al., 2021).

Studies of domestic and foreign scientists show that the development of the enterprise, including the level of competitiveness and financial stability is more effectively influenced by internal factors (Pimonenko et al. 2017; Dubina et al., 2020; Akhundova et al., 2020; Sotnyk and Us, 2018).

The internal factors influencing the level of competitiveness and financial

stability of the enterprise include labor resources - it is the provision of human resources, skill level, productivity and management methods, and so on.

The results of trend analysis revealed an increase in global interest in such a phenomenon as “green competitiveness”. It is also necessary to note the decline since 2005 in the dynamics of search queries for the key term “labor resources”. The dynamics of search queries for the term “financial stability” is not stable enough, but it is advisable to pay attention to the increase in search queries in the period 2008-2010, which was provoked by the global financial crisis. At the same time there is a direct correlation in the dynamics of search queries.

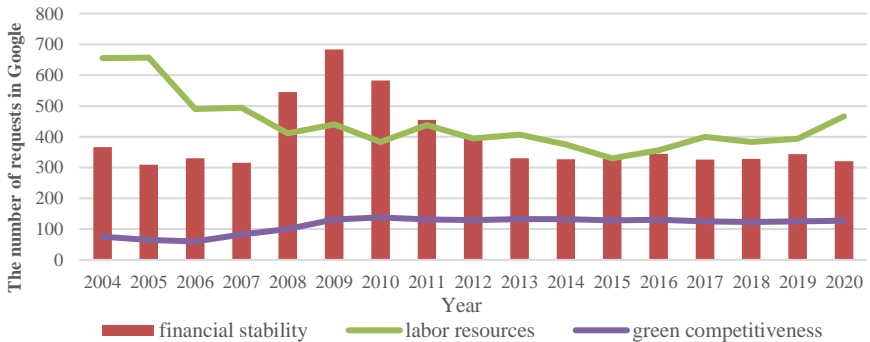


Figure 1. Dynamics of search queries on the key terms “green competitiveness”, “financial stability” and “labor resources” in Google using Google Trends

The study of the impact of human resources on green competitiveness and financial stability of enterprises took place in several stages. As a result of the analysis of scientific research, it was concluded that the topic is quite relevant but not fully disclosed, because among the scientific community there are still no generally accepted methods for assessing the green competitiveness of enterprises and research in the field of human resources as determinants of green competitiveness and financial stability quite a bit.

The trend analysis revealed a growing interest in the world in such phenomena as “green competitiveness”, “financial stability” and “labor resources”. In general, it is necessary to note the publishing activity on the impact of human resources on green competitiveness and financial stability of the enterprise since 2008. At the same time, the largest share of publications falls on 2020-2021. The results of the study revealed a significant impact of labor resources and methods of their management on the level of green competitiveness and financial stability of enterprises.

References

- Akpoviroro, K. S., Olalekan, A., Alhaji, S. A. (2018). Moderating Influence of Strategic Human Resources Management Practices on Small-Medium Firm Performance. *Business Ethics and Leadership*, 2(4), 99-107. [http://doi.org/10.21272/bel.2\(4\).99-107.2018](http://doi.org/10.21272/bel.2(4).99-107.2018).
- Antonyuk, N., Plikus, I., & Jammal, M. (2021). Sustainable business development vision under the covid-19 pandemic. *Health Economics and Management Review*, 2(1), 37-43. <https://doi.org/10.21272/hem.2021.1-04>
- Balaraman, P., Gebre, T., Berhe, G., Priya, K. (2018). Performance Appraisal Fundamentals, Practices and Challenges in Public Sector: Case of Adigrat Town, Ethiopia. *Business Ethics and Leadership*, 2(4), 18-34. [http://doi.org/10.21272/bel.2\(4\).18-34.2018](http://doi.org/10.21272/bel.2(4).18-34.2018).
- Cheng, X., Long, R., Chen, H., & Li, Q. (2019). Coupling coordination degree and spatial dynamic evolution of a regional green competitiveness system – A case study from China. *Ecological Indicators*, 104, 489–500. doi:10.1016/j.ecolind.2019.04.003
- Cheng, X., Long, R., Chen, H., & Li, W. (2018). Green competitiveness evaluation of provinces in China based on correlation analysis and fuzzy rough set. *Ecological Indicators*, 85, 841–852. doi:10.1016/j.ecolind.2017.11.045
- Dave, H. (2019). The X-ray report of “Economic growth”. *Financial Markets, Institutions and Risks*, 3(4), 89-93. [http://doi.org/10.21272/fmir.3\(4\).89-93.2019](http://doi.org/10.21272/fmir.3(4).89-93.2019).
- Fankhauser, S., Bowen, A., Calel, R., Dechezleprêtre, A., Grover, D., Rydge, J., & Sato, M. (2013). Who will win the green race? In search of environmental competitiveness and innovation. *Global Environmental Change*, 23(5), 902–913. doi:10.1016/j.gloenvcha.2013.05.0
- Gouvea, R., Kassiech, S., & Montoya, M. J. R. (2013). Using the quadruple helix to design strategies for the green economy. *Technological Forecasting and Social Change*, 80(2), 221–230. doi:10.1016/j.techfore.2012.05.00
- Gupta, R. (2021). The Concept of Leadership is Always Engaging for an Elite Occupational Preeminence. *Business Ethics and Leadership*, 5(2), 139-146. [https://doi.org/10.21272/bel.5\(2\).139-146.2021](https://doi.org/10.21272/bel.5(2).139-146.2021)
- Mazur-Wierzbička, E. (2019). Human Resources as Fundamental Element Determining the Development of Innovation. *Marketing and Management of Innovations*, 1, 335-356. <http://doi.org/10.21272/mmi.2019.1-28>
- Md Yusuf Hossein Khan (2018). Strategic Human Resource Practices and its Impact on Performance towards Achieving Organizational Goals. *Business Ethics and Leadership*, 2(2), 66-73. DOI: 10.21272/bel.2(2).66-73.2018.
- Oluwole, F. O. (2021). The Impact of Corporate Governance on Banks Profitability in Nigeria. *Financial Markets, Institutions and Risks*, 5(1), 18-28. [https://doi.org/10.21272/fmir.5\(1\).18-28.2021](https://doi.org/10.21272/fmir.5(1).18-28.2021)
- Ou, J. J. R., JrJung Lyu, & Chia-Wen Chen. (2011). Initial development of a metrics

- framework for green competitiveness. *First International Technology Management Conference*. doi:10.1109/itm.2011.5996046
- Pavlenko, O., Sukalenko, V., Shkulipa, O., & Sharma, M. S. (2021). Personnel management features of medical institutions. *Health Economics and Management Review*, 2(1), 44-53. <https://doi.org/10.21272/hem.2021.1-05>
- Pimonenko, T., Lyulyov, O., Us, Ya. (2018). Green Development of Small and Medium Enterprises of Ukraine: the EU Experience. Proceedings of the International Scientific Conference "Competitiveness and Innovation in the Knowledge Economy", Vol. 2, 28-29 September 2018, Kishinev, Moldova, p.69-78
- Shipko, A., Demikhova, N., Pajak, K., & Motrechko, V. (2020). Health management at the regional level: multivariable performance assessment. *Health Economics and Management Review*, 1(2), 8-15. <https://doi.org/10.21272/hem.2020.2-01>
- Tommaso, F. D., Gulinelli, A. (2019). Corporate Governance and Economic Performance: The Limit of Short Termism. *Financial Markets, Institutions and Risks*, 3(4), 49-61. [http://doi.org/10.21272/fmir.3\(4\).49-61.2019](http://doi.org/10.21272/fmir.3(4).49-61.2019).
- Tsai, S.-B., Saito, R., Lin, Y.-C., Chen, Q., & Zhou, J. (2014). Discussing measurement criteria and competitive strategies of green suppliers from a green law perspective. *Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture*, 229(1_suppl), 135–145. doi:10.1177/0954405414558740
- Zeynalli, L. (2021). Human Capital in Azerbaijan: Building Competitive Workforce Capacity for Industry 4.0. *SocioEconomic Challenges*, 5(2), 58-69. [https://doi.org/10.21272/sec.5\(2\).58-69.2021](https://doi.org/10.21272/sec.5(2).58-69.2021)
- Ziabina, Ye., Kwilinski, A. & Belik, T. (2021). HR management in private medical institutions. *Health Economics and Management Review*, 2(1), 30-36. <https://doi.org/10.21272/hem.2021.1-03>
- Akhundova, N., Pimonenko, T., Us, Ya., (2020). Sustainable growth and country green brand: visualization and analysis of mapping knowledge (Book of Proceedings), 55th International Scientific Conference on Economic and Social Development – "Economic and Social Development", Baku, 18-19 June 2020, P. 234–243.
- Dubina, O., Us, Y., Pimonenko, T., & Lyulyov, O. (2020). Customer Loyalty to Bank Services: The Bibliometric Analysis. *Virtual Economics*, 3(3), 52-66. [https://doi.org/10.34021/ve.2020.03.03\(3\)](https://doi.org/10.34021/ve.2020.03.03(3))
- Pimonenko T., Us J., Leus D., Fedyna S. (2017). The modern ecological and economic instruments for sustainable development. *Visnyk of Sumy State University. Economy series*, 2, 57–67.
- Sotnyk, I., Us, Ya. (2018). Participation budget: application experience and prospects for improvement in the cities of Ukraine, *Mechanism of Economic Regulation*, 1, 31-44

SHADOW ECONOMY AS A THREAT TO NATIONAL SECURITY

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The shadow economy is inherent in the economic system of any state without exception. However, depending on the scale, it affects the economic and socio-political processes in a given country in different ways.

In the literature, the allowable size of the shadow economy is 5-10% of GDP, this scale does not cause significant changes or violations in the socio-economic processes of the state. An increase in the size of more than 30% of GDP is evidence of the existence in society of a reproductive system of shadow economic relations, which leads to an imbalance in the economy (Borusevych, 2012).

According to the Ministry of Economy of Ukraine as of the 1st quarter of 2021, the size of the shadow economy is 30% of official GDP, which exceeds critical limits (Department of Strategic Planning and Macroeconomic Forecasting,). In turn, this leads to disparities in the economy, losses of the state budget, reduced financial security, ineffective decisions of socio-economic policy. That is why, in order to ensure the sustainable development of the country and improve the living standards of the population, it is necessary to minimize both internal and external threats to economic security, one of which is the shadow economy.

The concept of "shadow economy" means economic activity aimed at generating income bypassing government regulation, monitoring and taxation. It includes monetary and non-monetary transactions of a legal nature that are subject to taxation (Feige, 2016; Mazurenko et al., 2021; Bozhenko, 2021; Starchenko et al., 2021; Dudchenko, 2020; Yelnikova and Barhaq, 2020; Goncharenko and Lopa, 2020; Eddassi, 2020).

An increase in the share of the shadow sector leads to an increase in the level of instability in society, its criminalization and the emergence of threats to economic security (Shkarlet et al., 2019; Vasilieva et al., 2017; Bublyk et al., 2017; Fila et al., 2020; Gallo et al., 2019). According to the National Security Strategy of Ukraine, the most threatening for economic security is the high level of shadowing of the economy, the lack of sufficient incentives to legalize income and increase shadow employment.

The shadow sector, as a system of economic relations not regulated by the state, associated with the formation and use of funds to meet their own needs or commit illegal acts, is a danger to all components of the economic system (Ziabina et al., 2020; Chukwu and Kasztelnik, 2021; Medani and Bhandari, 2019; Samoilkova, 2020; Yarovenko et al., 2020; Mazurenko and Tiutiunyk, 2021; Pimonenko et al., 2021; Kryvych and Goncharenko, 2020; Matsenko et al., 2021;

Lazorenko et al., 2021; Oleksich et al., 2021; Mamay et al., 2021; Taraniuk et al., 2020). Such relations are carried out in relation to the distribution of the value of GDP, income from foreign economic activity and part of the national wealth, which are then used to reproduce shadow relations, criminal or terrorist activities (Dyuz-Kryatchenko & Lisitsyn, 2014).

Such crimes as: money laundering; withdrawal of currency to offshore zones and to bank accounts of fictitious firms or abroad; withdrawal of funds from state control and taxation; misuse of budget funds is the most dangerous threat to economic security and requires an immediate response.

These phenomena are most actively spread during crises and economic reforms, creating an even greater imbalance in the economic and social system of the country (Podmazko, 2014).

Given the complexity of the organization of shadow schemes in the economy and active penetration into various spheres of public life, identified the main areas of its impact on the development of relations in:

- economic environment: increasing the tax burden on businesses and individuals; reduction of revenues to the budgets of different levels due to the optimization of taxation and concealment of the real value of the object of taxation; deformation of the structure of budget expenditures by underfunding of priority and socially important activities; increase in public debt; reducing the investment attractiveness of the country; creating pressure on market competition; withdrawal of national capital outside the country.

- social environment: increasing criminalization of society, lower living standards, increasing official unemployment in the country, increasing the level of income inequality, weakening social protection and security, increasing external migration, exacerbating social conflict and tension in society.

Unfortunately, it is impossible to completely get rid of the shadow economy, but it is possible to reduce its scale by creating favorable conditions for increasing economic and investment activity of economic entities in the formal sector. That is why the primary task of the state on the way to de-shadowing and preventing economic threats is to develop a comprehensive approach that will take into account the peculiarities of the national economy, based on international experience and international standards to combat them.

References

- Bandurka O.M., Litvinov O.M. Strategy and tactics of crime prevention: monograph. Kharkiv, 2012. 178 p. (in Ukrainian).
- Borusevych Kh. Yu. Current state and tendencies of shadow economy development in the post-crisis period. Financial and credit activities: problems of theory and practice: a collection of scientific papers. 2012. № 1. P. 117–123. (in Ukrainian).

- Bozhenko, V. (2021). Enhancing Business Integrity as a Mechanism for Combating Corruption and Shadow Schemes in the Country. *Business Ethics and Leadership*, 5(3), 97-101. [https://doi.org/10.21272/bel.5\(3\).97-101.2021](https://doi.org/10.21272/bel.5(3).97-101.2021)
- Bublyk, M., Koval, V., Redkva, O. (2017). Analysis impact of the structural competition preconditions for ensuring economic security of the machine building complex. *Marketing and Management of Innovations*, 4, 229-240, <http://doi.org/10.21272/mmi.2017.4-20>
- Chukwu, A.O., Kasztelnik, K. (2021). Innovative Strategies For Social-Economic Development Financial Strategies In The Development Country. *SocioEconomic Challenges*, 5(1), 44-65. [https://doi.org/10.21272/sec.5\(1\).44-65.2021](https://doi.org/10.21272/sec.5(1).44-65.2021)
- Department of Strategic Planning and Macroeconomic Forecasting. General trends of the shadow economy in Ukraine in the first quarter of 2021. URL: <https://www.me.gov.ua/Documents/Download?id=bbe40d7b-667e-46ab-8de4-c07c08bb4958> (*in Ukrainian*).
- Dudchenko, V.Yu. (2020). Interaction of Central Bank Independence and Transparency: Bibliometric Analysis. *Business Ethics and Leadership*, 4(2), 109-115. [https://doi.org/10.21272/bel.4\(2\).109-115.2020](https://doi.org/10.21272/bel.4(2).109-115.2020).
- Dyuz-Kryatchenko O.P., Lisitsyn E.M. On the terminological aspect of the problem of national security of Ukraine. *Modern information technologies in the field of security and defense*. 2014. № 1 (19). Pp. 122–125. (*in Ukrainian*).
- Eddassi, H. (2020). Fiscal Regime and Tax Policy in Resource-Rich Countries In The Process Of Globalization: Literature Review. *SocioEconomic Challenges*, 4(2), 67-77. [https://doi.org/10.21272/sec.4\(2\).67-77.2020](https://doi.org/10.21272/sec.4(2).67-77.2020).
- Feige E.L. Reflections on the Meaning and Measurement of Unobserved Economies: What do we really know about the “Shadow Economy”? *Journal Tax Administration*. 2016. Vol 2: 2. (*in Ukrainian*).
- Fila, M., Levicky, M., Mura, L., Maros, M., & Korenkova, M. (2020). Innovations for Business Management: Motivation and Barriers. *Marketing and Management of Innovations*, 4, 266-278. <http://doi.org/10.21272/mmi.2020.4-22>
- Gallo, P., Mihalcova, B., Vegsoova, O., Dzurov-Vargova, T & Busova, N. (2019). Innovative Trends in Human Resources Management: Evidence for the Health Care System. *Marketing and Management of Innovations*, 2, 11-20. <http://doi.org/10.21272/mmi.2019.2-01>
- Goncharenko, T., Lopa L. (2020). Balance Between Risk And Profit In The Context Of Strategic Management: The Case Of Ukrainian Banks. *SocioEconomic Challenges*, 4(1), 111-121. [http://doi.org/10.21272/sec.4\(1\).111-121.2020](http://doi.org/10.21272/sec.4(1).111-121.2020).
- Kryvych, Y., Goncharenko, T. (2020). Banking strategic management and

- business model: bibliometric analysis. *Financial Markets, Institutions and Risks*, 4(1), 76-85. [http://doi.org/10.21272/fmir.4\(1\).76-85.2020](http://doi.org/10.21272/fmir.4(1).76-85.2020).
- Lazorenko, V., Saher, L., & Jasnikowski, J. (2021). Web management as a marketing management determinant: case for pharmaceutical enterprises. *Health Economics and Management Review*, 2(2), 105-114. <https://doi.org/10.21272/hem.2021.2-10>
- Mamay, A., Myroshnychenko, Iu., & Dzwigol. H. (2021). Motivation management model and practical realization within the health care institutions. *Health Economics and Management Review*, 2(2), 23-30. <https://doi.org/10.21272/hem.2021.2-03>
- Matsenko, O., Kubatko, O., Bardachenko, V., & Demchuk, K. (2021). Transformation of the Restaurant Business as a Result of the COVID-19 Pandemic: Improving the Security of Service and Maintaining the Health of Human Capital. *Health Economics and Management Review*, 2(3), 27-38. <https://doi.org/10.21272/hem.2021.3-03>
- Mazurenko, O., Tiutiunyk, I. (2021). The International Tax Competitiveness: Bibliometric Analysis. *Financial Markets, Institutions and Risks*, 5(1), 126-138. [https://doi.org/10.21272/fmir.5\(1\).126-138.2021](https://doi.org/10.21272/fmir.5(1).126-138.2021)
- Mazurenko, O., Tiutiunyk, I., Derkach, L. (2021). The Impact of Tax Morality on Tax Evasion: Evidence of EU Countries. *Business Ethics and Leadership*, 5(3), 108-112. [https://doi.org/10.21272/bel.5\(3\).108-112.2021](https://doi.org/10.21272/bel.5(3).108-112.2021)
- Medani P. Bhandari (2019). Sustainable Development: Is This Paradigm The Remedy of All Challenges? Does Its Goals Capture The Essence of Real Development and Sustainability? With Reference to Discourses, Creativeness, Boundaries and Institutional Architecture. *SocioEconomic Challenges*, 3(4), 97-128. [http://doi.org/10.21272/sec.3\(4\).97-128.2019](http://doi.org/10.21272/sec.3(4).97-128.2019).
- Oleksich, Zh., Polcyn, J., & Shtorgin, O. (2021). Adaptation of the best European practices in administering local health care institutions. *Health Economics and Management Review*, 2(2), 15-22. <https://doi.org/10.21272/hem.2021.2-02>
- Pimonenko, T., Us, Ya., Myroshnychenko, Yu., Dubyna, O., Vasylyna, T. (2021). Green Financing for Carbon-Free Growth: Role of Banks Marketing Strategy. *Financial Markets, Institutions and Risks*, 5(3), 71-78. [https://doi.org/10.21272/fmir.5\(3\).71-78.2021](https://doi.org/10.21272/fmir.5(3).71-78.2021)
- Podmazko O.M. The impact of the shadow economy on threats to economic security. 2014. Vol. 4 (14). P. 142–151.
- Samoilikova, A. (2020). Financial Policy of Innovation Development Providing: The Impact Formalization. *Financial Markets, Institutions and Risks*, 4(2), 5-15. [https://doi.org/10.21272/fmir.4\(2\).5-15.2020](https://doi.org/10.21272/fmir.4(2).5-15.2020).

- Shkarlet, S., Kholiavko, N., Dubyna, M. (2019). Information Economy: Management of Educational, Innovation, and Research Determinants. *Marketing and Management of Innovations*, 3, 126-141. <http://doi.org/10.21272/mmi.2019.3-10>
- Starchenko, L.V., Samusevych, Ya., Demchuk, K. (2021). Social and Eco-Friendly Entrepreneurship: The Keys to Sustainability. *Business Ethics and Leadership*, 5(1), 118-126. [https://doi.org/10.21272/bel.5\(1\).118-126.2021](https://doi.org/10.21272/bel.5(1).118-126.2021)
- Taraniuk, L., D'yakonova, I., Taraniuk, K., & Qiu, H. (2020). Basic financing principles of anti-covid measures: the case of the bank for international settlements. *Health Economics and Management Review*, 1(2), 43-50. <https://doi.org/10.21272/hem.2020.2-05>
- Vasilieva, T., Lieonov, S., Makarenko, I., Sirkovska, N. (2017). Sustainability information disclosure as an instrument of marketing communication with stakeholders: markets, social and economic aspects. *Marketing and Management of Innovations*, 4, 350 – 357. <http://doi.org/10.21272/mmi.2017.4-31>
- Yarovenko, H., Kuzmenko, O., Stumpo, M. (2020). Strategy for Determining Country Ranking by Level of Cybersecurity. *Financial Markets, Institutions and Risks*, 4(3), 124-137. [https://doi.org/10.21272/fmir.4\(3\).124-137.2020](https://doi.org/10.21272/fmir.4(3).124-137.2020)
- Yelnikova, Ju., Barhaq, A.R. (2020). Transparency of Responsible Investment Environment. *Business Ethics and Leadership*, 4(4), 68-75. [https://doi.org/10.21272/bel.4\(4\).68-75.2020](https://doi.org/10.21272/bel.4(4).68-75.2020)
- Ziabina, Ye., Pimonenko, T., Starchenko, L. (2020). Energy Efficiency Of National Economy: Social, Economic And Ecological Indicators. *SocioEconomic Challenges*, 4(4), 160-174. [https://doi.org/10.21272/sec.4\(4\).160-174.2020](https://doi.org/10.21272/sec.4(4).160-174.2020)

BLOCKCHAIN TECHNOLOGY: CURRENT STATUS AND PROSPECTS

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The constant growth of competition in the market, the sharp differentiation of the population's needs encourage the world and lead companies to seek new directions of business development. It should also be borne in mind that the situation with the Covid-19 Pandemic and quarantine has become a catalyst for the development and dissemination of the most applied and practical projects in the field of e-commerce, remote work.

All this has led to the fact that the development of cryptocurrencies and increasing the share of e-business methods used only in narrow areas. They have become widely used and now perform all the necessary functions for the stable development of the enterprise. The best known and most profitable is blockchain technology, which has proven its effectiveness in recent years, increasing the profits of companies that use it. Using this technology can reduce companies' costs, especially participants in the stock market, and provide regulatory activity and a stable position in the market. You can also assess the risks of information loss, minimize them, develop the most effective algorithms in each case.

The development of blockchain technology is associated with the advent of bitcoin. Blockchain is based on distributed technology distributed ledger technology (DLT). Blockchain technology solves the problem of double the cost. This is done by opening the key cryptography key: each user is assigned a private key, and all other users share a public key. The blockchain contains registers of transactions built-in chains, they form blocks of information. Each block includes the previous block's data; while all data is protected, any attempt to delete them is impossible. The base is decentralized, does not belong to any business entity, is not controlled and regulated by a third party, is characterized by anonymity and the use of an agreed consensus mechanism.

The global application of blockchain technology is widespread. Such countries use it as the USA, Germany, France, Estonia, China, Ukraine, others. The leader of the blockchain in the field is the United States. However, according to forecasts, in 2021–2023 China will take the leading position (PwC, 2018). In the United States, the main exchange-traded funds, hedge funds, and cryptocurrency companies that use the blockchain are widespread. Blockchain is used in the financial, land, military, political, and real estate sectors. The worldwide distribution and use of the blockchain have their advantages: the technology facilitates the process of digitizing documents, access to public services, simplified information management, provides the ability to pay taxes online and more.

The World Economic Forum in Davos predicted that by 2027, 10% of world GDP would be stored in blockchain networks. If it is necessary to note that Ukraine reaches 14 leading countries, then technology is being introduced to the bottom. (Ukrinform, 2018). Ukraine is also among the top ten countries where blockchain is used at the state level. According to the Blockchain of Ukraine Association, about 200 crypto companies and blockchain companies in Ukraine. 78% of the companies are focused on both Ukrainian and global markets, 16% only in foreign markets and only one company solely in the Ukrainian market (BAU, 2019). Most companies communicate very closely with everyone members of the blockchain/crypto community in. An active community that includes founders companies, private entrepreneurs, experts and enthusiasts of the industry have more than 350 participants. On average, the topic of blockchain and cryptocurrency. One event a week takes place in Ukraine.

At the end of January 2021, the Strategy for the Development of the Financial Sector of Ukraine until 2025 was approved. The key direction is the development of big data, blockchain and cloud technologies (NBU, 2021). The NBU's efforts aim to develop the concept of the digital hryvnia. Thus, the regulator is trying to respond quickly to digital trends in the global economy, adapting to the new challenges of the domestic financial and credit system. Regarding the opportunities for domestic companies that plan to implement blockchain technology to function your activity, it is an official legal and cooperation with the banking system. In this way, you can significantly reduce operating costs and increase working capital.

Thus, the use and development of blockchain technologies will minimize risks and increase the economic level of the country's development.

References

- Ukraine is one of the leaders in blockchain innovation // Ukrinform. – 2018. [Electronic resource]. Access mode: <https://www.ukrinform.net/rubric-economy/2390351-ukraine-listed-among-leaders-in-blockchain-innovation.html>
- PwC Global Blockchain Survey // PricewaterhouseCoopers. – 2018. [Electronic resource]. Access mode: <https://www.pwc.com/jg/en/publications/blockchain-is-here-next-move.html>
- OVERVIEW OF THE BLOCKCHAIN INDUSTRY IN UKRAINE // Blockchain Association of Ukraine. May 2019, Kyiv. [Electronic resource]. Access mode: <https://bau.ai/wp-content/uploads/2019/05/Overview-of-the-blockchain-industry-in-Ukraine.pdf>.
- Strategy of Ukrainian Financial Sector Development until 2025 // National Bank of Ukraine. 2021. [Electronic resource]. Access mode: <https://bank.gov.ua/en/news/all/strategiya-rozvitku-finansovogo-sektoru-ukrayini-do-2025-roku-7686>

DEVELOPMENT OF DIGITAL BANKING

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More than 70% of commercial banks in Ukraine and some insurance companies had difficulty attracting customers during the coronavirus pandemic. Therefore, their primary efforts focused on digitizing products, changing approaches to promoting goods and services on the Internet, and developing remote customer service channels.

However, fully digital banks offer a different perspective on the future of banking. It turned out that the most prepared for the period of restrictions were digital banks, whose business model provides for the complete digitalization of all services and products. These financial institutions did not have significant problems with sales and customer service during the pandemic. Despite the availability of more advanced tools for digital sales and customer service, digital banks consider it necessary to develop a data-oriented approach further and strengthen their competencies in digital marketing (Phaneuf, A., 2021).

The driving force behind the implementation of the Open Banking initiative is the Payment Services Directive 2 (PSD2) in the EU. This directive came into force on January 12, 2018, requiring banks to open customer information to third-party suppliers through open APIs (software interface). This initiative has given fintech companies new opportunities in the market and to monetize both their services and the services of other service providers or banks (Directive (EU), 2015).

Opening a current account online is now a standard feature for fintech companies, neobanks and digital banks. Although a few years ago, the ability to open an account through a mobile application was a very innovative feature. According to Statista, 60-70% of respondents prefer to use online channels or mobile applications to connect to financial services because physical identification in a bank branch means less comfort and more time (Aslund, A., 2021). Digital banking services have been created to improve the customer experience and connect to services from any device and anywhere in the world.

In addition to financial capabilities, open APIs allow companies to provide personalized services to the end-user. In addition to online applications for end-users, banking technology has also become available online in the cloud. Digital banks have begun to offer cloud-based SaaS solutions (software as a service) to simplify the market entry process for digital banks and other fintech companies without the need to implement an IT system on their side (Poluschkin, G., 2020).

Artificial intelligence has also become an integral part of many digital banking solutions. It can manage customer data, such as preferences and interests, demographics, or transaction data. Simply put, customers get what they expect based on their habits and preferences. This technology provides analytics of customer behaviour data and is also used to detect suspicious transactions and prevent fraud. Compared to traditional banking systems, digital banking systems are more flexible to any changes caused by changes in the regulatory framework (Mărăciuc, V. et al, 2020).

Another revolutionary tool of modern digital banks is the cryptocurrency wallet. Cryptocurrency is something that has nothing to do with banks. There are very few countries that regulate it, so banks do not offer themselves and avoid cooperating with companies whose business is related to cryptocurrency. All this puts fintech companies and digital banks, as a FinTech product, in a better position.

A new digitalization trend has come to Ukraine, and the first companies to feel it were commercial banks. Currently, four online/digital banks are officially registered in the financial sector of Ukraine. Digital banking is a completely new business model for Ukraine, and currently, it has awe-inspiring results (Aslund, A., 2021).

After the nationalization in 2016 of PrivatBank, the largest commercial bank in Ukraine, all top managers left the bank. Some of them launched their Fintech Band and began to compete with what they worked on for years. The plan was to create something like PrivatBank, but online. A couple of years later, Fintech Bank and the commercial bank Universal Bank created a joint project called Monobank. Today, it is the leading digital bank in Ukraine with more than 3.4 million daily users, and by 2022 the company plans to increase its total value by more than \$ 1 billion.

It is important to note that Monobank is not a fully independent bank with its license or infrastructure. Fintech Band created and developed a banking application under a different brand for Universal Bank. The co-founders say they started working with Universal for several reasons: first, they appreciated the concept of a mobile bank, the team found common ground with management, and the bank was ready to provide resources for future lending operations.

One of the project's essential tasks was to create good software and to identify credit risks. Many machine learning models at Monobank work specifically to identify credit risks, accompanying the entire credit decision-making process. The company's founders have learned to take risks so well that the Fintech Band now sells risk analysis tools similar to the Monobank Tools as part of a separate Artificial Intelligence Solutions project.

There are currently four mobile banks in Ukraine and several other financial companies trying to compete with traditional banks (Poluschkin, G., 2020). There are already many young people who will never enter the traditional bank building

because they have their bank just in smartphones. Ukraine is now on the verge of a global transformation. Not only banks but the whole economy is moving to digital mode. Quarantine proved that the Internet and social networks are the primary means of subsistence and business.

References

- Aslund, A. (2021). What is Ukraine's economic outlook for 2021? | Atlantic Council. [online]. Available at: <https://www.atlanticcouncil.org/blogs/ukrainealert/what-is-ukraines-economic-outlook-for-2021/>.
- Directive (EU) 2015/2366 of the European Parliament and of the Council of November 25 2015 on payment services in the internal market (PSD2). [online]. Available at: <http://data.europa.eu/eli/dir/2015/2366/oj>.
- Poluschkin, G. (2020). Banking Sector Monitoring Ukraine Assessment of past reforms and COVID-19 impact. German Economic Team. [online] Available at: https://www.german-economic-team.com/ukraine/wp-content/uploads/sites/7/GET_UKR_PB_07_2020.pdf.
- Mărăciune, V., Voican, O., Scarlat, E. (2020). The digital transformation and disruption in business models of the banks under the impact of fintech and BigTech. Proceedings of the International Conference on Business Excellence.
- Phaneuf, A. (2021). The disruptive trends and companies transforming digital banking services in 2021. [online]. Available at: <https://www.insiderintelligence.com/insights/digital-banking-trends/>.

INSTITUTIONAL DETERMINANTS OF THE INTERNATIONAL TAX COMPETITIVENESS

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The tax system is an important factor that determines the country's attractiveness for international investors and the trust of international partners, characterizes the favorable business environment, etc. Thus, the quality and efficiency of the tax system is the key to increasing the country's competitiveness, financial stability and sustainability of its budget (Boiko & Samusevych, 2017).

Current trends in the study of tax competitiveness indicate the transformation of the traditional model of the formation of the country's tax competitiveness, which is based exclusively on tax mechanisms for the formation and implementation of tax policy and the formation of a new type of model, which is based on the competition of legislative, administrative, tax, financial, social and other components tax policy of the country.

The Tax Foundation annually evaluates the level of international tax competitiveness of the world's leading countries in terms of the main types of taxes. As shown in Table 1, the tax system of Estonia, Latvia and New Zealand is the most competitive. At the same time, as the results show, the analyzed countries have significant differences in the competitiveness of certain types of taxes. So, for example, in terms of the competitiveness of consumption taxes, Latvia ranks 27th, and in terms of Corporate Tax – 2nd. Thus, it can be argued about the diversity of approaches to the administration of certain types of taxes, the presence of shortcomings in the components of tax policy in most of the analyzed countries, and the lack of a clear understanding of the complex toolkit ensuring an effective and competitive tax system. This necessitates the application of a diversified toolkit of state management of the tax system, which would take into account the specifics of calculating and paying each individual tax payment, the level of tax morale and responsibility of payers, the quality of the country's institutional environment, etc.

The basis of determining the drivers of the formation of tax competitiveness is the understanding of its essence. Quite often, the competitiveness of the tax system is understood as its ability to maintain low marginal tax rates (Azacis & Collie, 2021).

Table 1. TOP-10 countries according to the International Tax Competitiveness Index Rankings-2021

Country	Rank	Corporate Tax Rank	Individual Taxes Rank	Consumption Taxes Rank	Property Taxes Rank	Cross-Border Tax Rules Rank
Estonia	1	3	1	9	1	15
Latvia	2	2	5	27	5	9
New Zealand	3	28	6	6	2	22
Switzerland	4	10	15	1	35	2
Luxembourg	5	25	20	4	13	5
Lithuania	6	4	7	24	7	23
Czech Republic	7	8	4	35	6	12
Sweden	8	9	18	16	8	14
Australia	9	29	17	7	4	24
Norway	10	11	13	18	15	11

Source: The Tax Foundation (2022).

Given that businesses direct their investments only to those countries that are able to provide them with the highest rate of return, the level of tax burden on investment income is the criterion taken into account by investors when choosing a country to invest funds. This means that businesses will prioritize countries with a lower tax rate, which maximizes the after-tax rate of return. Thus, too high tax rates will lead to the flow of investments to other more "tax-attractive" countries and, accordingly, to a slowdown in economic growth. In addition, high marginal tax rates can lead to tax evasion (Tiutiunyk & Kobushko, 2018). Thus, within the framework of this approach, the formation of the country's tax competitiveness is possible only through the manipulation of tax rates.

However, in our opinion, supporters of this approach do not take into account the significant influence of the institutional component on the level of the country's international tax competitiveness. The complexity and time-consuming process of calculating and paying taxes, the inconsistency of tax legislation negatively affect the competitiveness of the country's tax system, its perception by business and international partners.

The level of corruption and the shadow economy has a negative impact on the level of the country's international tax competitiveness. Quite often, for international investors and companies, these factors play a more important role than the level of the tax burden. They consider the transparency of the conditions for doing business in the country as a guarantee of its success and profitability.

In this way, the neglect of the institutional component of the formation of international tax competitiveness has a negative effect on the volume of filling the state budget and the effectiveness of the functioning of the tax system in the country.

References

- Azadis, H., Collie, D. R. (2021). A general model of international tax competition with applications, Cardiff Economics Working Papers, No. E2021/31, Cardiff University, Cardiff Business School, Cardiff
- Boiko, A., Samusevych, I. (2017). The role of tax competition between the countries of the world and the features of determining the main tax competitors of Ukraine among the European countries. *Financial Markets, Institutions and Risks*, 1(1), 72-79. [http://doi.org/10.21272/fmir.1\(1\).72-79.2017](http://doi.org/10.21272/fmir.1(1).72-79.2017)
- The Tax Foundation (2022). International Tax Competitiveness Index 2021. URL: <https://taxfoundation.org/2021-international-tax-competitiveness-index/>
- Tiutiunyk, I. V., Kobushko Ia. V. (2018). Instruments for minimizing the tax burden in Ukraine: comparative analysis and effects from application. *Ekonomichnyy analiz*, 28(4), 122-130. URL: <http://sfs.gov.ua/en/>

ANALYSIS OF THE INTERNET ACTIVITIES AS A PROXY OF DIGITAL INCLUSION

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Rapid and large-scale digitalization has led to a radical transformation of people's everyday life, which requires the average citizen to master digital literacy skills at least at the minimum level. In particular, one of the most critical problems in the context of digitalization is that the spread of digital technologies is quite heterogeneous among the countries of the world. Thus, according to the "Digital Economy Report 2021" [1], presented by experts of the United Nations Conference on Trade and Development (UNCTAD), in developing countries only 20% of the population has the opportunity and uses Internet, which is characterized by high cost and low download speed, which in some cases is almost 8 times lower than the similar indicator in highly developed countries.

Quantitative assessment of the level of digital inclusion of the population is a rather complicated task, for the solution of which there is currently no unified methodological toolkit. Thus, it is possible to estimate its partially based on the analysis of the use of the global network by households to solve everyday tasks (Figures 1-3). For example, in most highly developed countries almost 8 out of 10 Internet users make online shopping, while in a group of least developed countries this figure is even less than 1 out of 10.

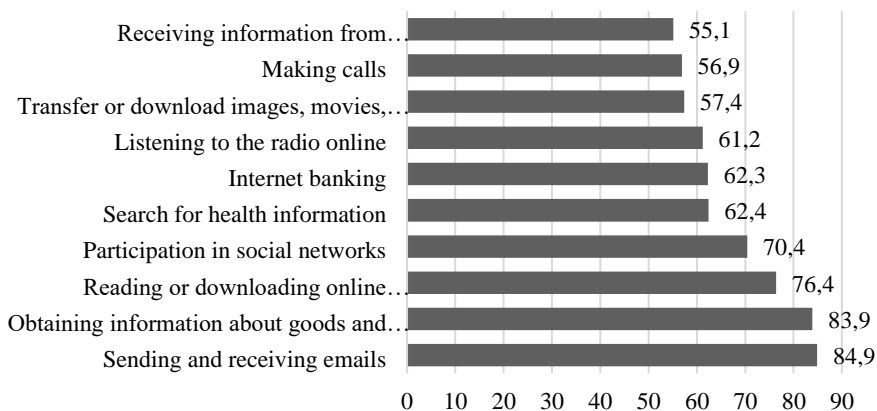


Figure 1. TOP-10 activities made by individuals via Internet in developed countries in 2021, %

Source: Digital Economy Report, 2021

It is also can be noted that the most popular services implemented by individuals in developed countries via the Internet (Figure 1) are Internet banking, sending and receiving e-mails, reading or downloading online newspapers, books, obtaining information about goods and services, searching for information about health, use of social networks and listening to the radio online, and it is the use of postal services and platforms for trading goods and services that lead this ranking of the most popular services.

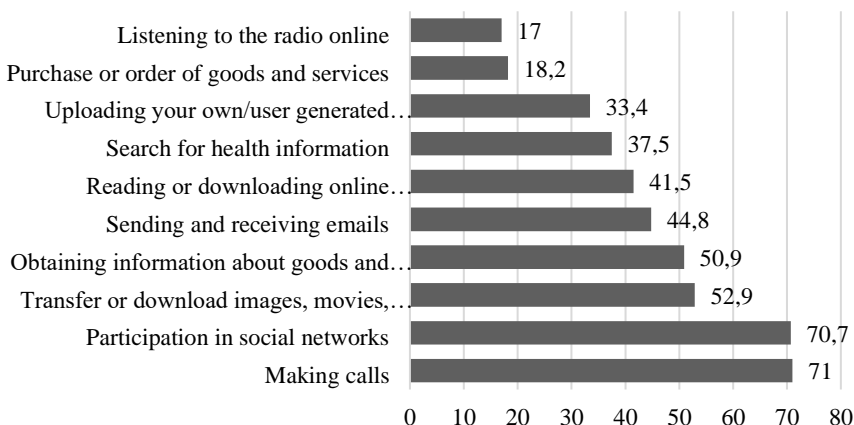


Figure 2. TOP-10 activities made by individuals via Internet in transitional economies in 2021, %

Source: Digital Economy Report, 2021

The most popular Internet activities among the population in transition economies (Figure 2) are making calls, using social networks, transferring or downloading images, movies, videos or music, playing games, sending and receiving e-mails, reading or downloading online newspapers, books, receiving information about goods and services, and the first two types of services lead this rating by a significant margin. It is worth noting that despite the existence of a significant list of types of activities common to both groups of countries, carried out by individuals via the Internet, there are also quite significant differences. In particular, this applies to the use of the Internet for making calls, as well as for downloading visual content, which can be explained by the high cost of mobile services and the low level of development of mechanisms for the protection of intellectual property rights in countries with economies in transition.

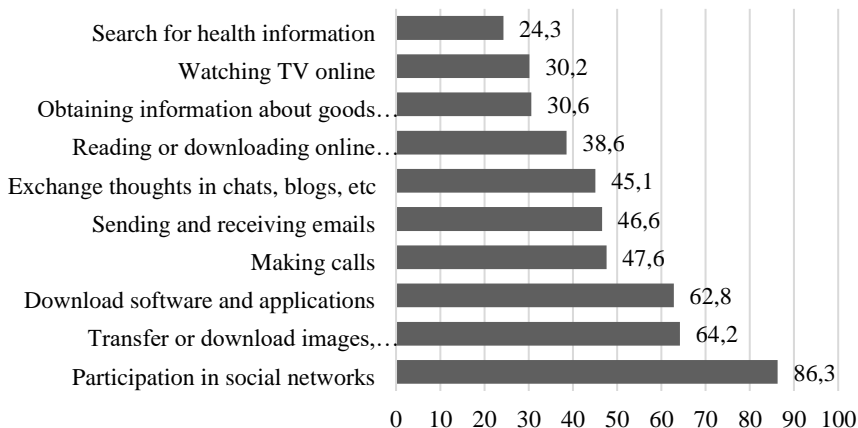


Figure 3. TOP-10 activities made by individuals via Internet in developing African countries in 2021, %

Source: Digital Economy Report, 2021

However, in developing African countries (Figure 3), the most popular services are participation in social network, sending or downloading images, movies, videos or music, games, and downloading software and applications, sending and receiving letters, making calls, etc.

Thus, it can be concluded that the development of digital technologies and the large-scale digitization of social life led to an increase in the list of activities carried out by individuals through the Internet, and in more developed countries, the population refuses to use the global network to download video and audio materials or software in favour of more progressive types of operations (for example, job search). The analysis of the above indicators of Internet activity of individuals allows us to note that an important prerequisite for ensuring the digital inclusion of the population is the presence of a satisfactory Internet connection, both using broadband and mobile Internet, as well as the speed of this connection. At the same time, the presence of a Internet does not yet allow the use of modern digital services and digital tools capable without sufficient hardware. That is why the availability and quality of computer equipment is as important as the Internet and software. Thus, the digital inclusion of the population is also determined by the intensity of trade in information and communication goods.

References

1. Digital Economy Report (2021). Cross-border data flows and development: For whom the data flow. URL: https://unctad.org/system/files/official-document/der2021_en.pdf

CURRENT TRENDS OF ENERGY SECURITY DEVELOPMENT

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In recent years, the development of the global energy sector has been characterized by constant transformations associated with the transition to renewable energy sources, the use of energy-saving technologies, and a decrease in the total volume of energy consumption. The reasons for these changes were the protracted energy crisis, which, in combination with significant volatility of energy prices, creates significant threats to energy security and stable functioning of the energy sector in most countries of the world.

One of the biggest global problems of today is the problem of excessive energy consumption, the dependence of individual countries on imported energy sources and, in general, the low level of energy security in most countries of the world. This leads to the constant attention of scientists and practitioners to this problem and the constant search for mechanisms to solve it.

International organizations and governments of countries are constantly implementing measures aimed at increasing pressure on energy market entities, compliance with security requirements, as well as protection of the energy system from terrorists and cyber attacks. Thus, according to the estimates of some experts, the global energy security market in 2021 amounted to more than 15 billion US dollars, and according to forecasts, it will reach 42 billion dollars by 2031.

In order to identify patterns of changes in society's interest in energy security issues, we will analyze the dynamics of changes in the number of Google search engine users' searches on these issues using the example of nine EU countries (Austria, Belgium, Spain, Italy, Lithuania, Latvia, Germany, Poland, France), as one of the first to undertake the reform of the global energy market by reducing carbon dioxide emissions, transitioning to renewable energy sources, and implementing programs to encourage society to more economical energy consumption.

The results of the trend analysis (a fragment is shown in Figure 1) indicate a different degree of interest of users of the Google search engine in energy security issues. The largest number of searches on energy security is observed in Austria, Belgium and Latvia, the smallest - in Spain, Italy, Germany and France.

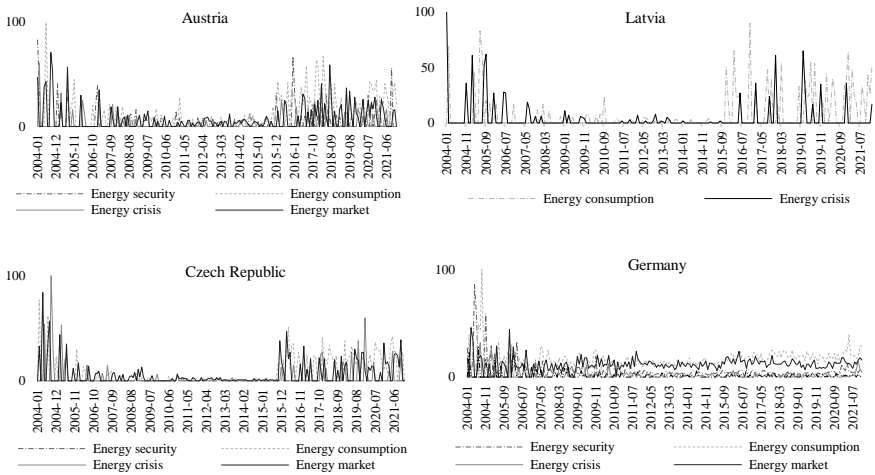


Figure 1. Trends in the number of searches by users of the Google search engine on issues of energy security development (fragment)

Source: built using the Google Trends toolkit

In general, in most of the analyzed countries of the world, three stages of research on these issues can be distinguished:

1st stage - 2004-2006 - a period characterized by a high degree of interest in the issues of energy crisis and energy security, energy consumption.

Stage 2 - 2006-2015 - a period of declining interest in these issues and a low level of search activity of users of the Google search engine on issues of energy security development.

Stage 3 - 2015-2021 - a period of aggravation of the problem of excessive energy consumption and a decrease in the level of energy security of some countries of the world. The reason for the new peak of interest in the issue of energy security may be the adoption of the Sustainable Development Goals in 2015, according to which countries undertook to ensure free access to cheap and energy, including by increasing the share of its renewable sources.

TECHNOLOGY TRANSFER AS AN IMPORTANT VECTOR FOR THE DEVELOPMENT OF INNOVATIVE POTENTIAL OF UKRAINE

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In the era of knowledge, the use of new technological innovations is the main need of every country. Developing societies need the development of technologies to promote creativity and competition. One of the methods of access to technology is technology transfer from developed countries. This process consists in the transfer of scientific knowledge, technologies and innovations from scientific institutions to business for the purpose of their commercialization. Technology transfer is the best option for reducing the technology gap between developed and developing countries [Помилка! Джерело посилання не знайдено]. The technology consists of two main components:

1) physical component, which consists of such elements as products, tools, equipment, drawings, methods and processes;

2) the information component, which consists of know-how in management, marketing, production, quality control, reliability, skilled labor and functional areas [Kumar V., Kumar U. & Persaud A. (1999)].

Technology transfer is the process of transferring skills, knowledge, technologies, and production methods through the exchange of product samples between governments, universities, and other institutions. Such sharing ensures that scientific and technical developments can be implemented among a wide range of users who can develop and use new products, processes, practical plans, materials and services [Halili Z. (2020)]. Technology transfer takes place through various channels: through foreign direct investment, the technology package is seen as the main approach to transfer advanced foreign technology to developing countries. Thus, local workers are hired and trained by foreign firms in their subsidiaries. In a joint venture, companies pool their technologies and resources into a newly created company characterized by shared ownership.

In general, developing countries can gain valuable skills and competencies from the successful experiences of previously industrialized and newly industrialized countries (especially East Asian and Latin American countries) in the areas of technological and industrial development. The successful experience of these countries has shown that the widespread acquisition and transfer of appropriate and modern technologies allows them to increase their productivity and, as a result, lead to rapid industrial development. For example, countries such as South Korea, Taiwan, Brazil, and Mexico are considered the newly industrialized countries of East Asia and Latin America mainly due to the import and transfer of foreign technology.

Today, it is a popular practice to obtain valuable skills and competencies

for developing countries from the successful experiences of previously industrialized and newly industrialized countries (especially East Asian and Latin American countries) in the areas of technological and industrial development. The successful experience of these countries has shown that the widespread acquisition and transfer of appropriate and modern technologies allows them to increase their productivity and, as a result, lead to rapid industrial development. South Korea, Taiwan, Brazil and Mexico are considered the newly industrialized countries of East Asia and Latin America mainly due to the import and transfer of foreign technology.

Countries differ in their experiences and approaches to technology transfer due to differences in their economic, political and social contexts.

Japan has a long history of technology transfer, with several government programs aimed at promoting innovation and entrepreneurship. The government has established several technology transfer offices to facilitate the transfer of research and inventions to industry. Japan also has a strong patent system that protects the intellectual property rights of inventors and companies [Ministry of Foreign Affairs of Japan (2020)].

Israel is known for its high-tech sector and has developed a unique approach to technology transfer. The Government of Israel, through the Office of the Chief Scientist, provides funding for academic research and encourages universities to commercialize their research. Israeli universities also work closely with the private sector to promote entrepreneurship and innovation [Industry 4.0: 7 Real-World Examples of Digital Manufacturing in Action (2019)].

China has made significant progress in technology transfer in recent years. The government has established several technology transfer centers to facilitate the transfer of research and innovation to industry. The centers provide funding, legal support and other resources to help researchers and entrepreneurs commercialize their inventions [Industry leaders are driving the adoption of advanced manufacturing technologies. World Economic Forum (2022)].

Technology transfer from other countries can be an important way to develop Ukraine's innovative potential. Among the key areas of stimulation of technology transfer, the following should be highlighted: partnerships with foreign companies; state support programs; exchange programs; cooperation with scientific centers.

Ukraine has a practice of technology transfer. The transfer of technologies and other objects of intellectual property rights in 2020 was carried out by higher education institutions, institutions, enterprises and organizations subordinate to the National Academy of Sciences of Ukraine - 5 institutions, the National Academy of Medical Sciences of Ukraine - 2, the National Academy of Agrarian Sciences of Ukraine - 26, The State Service for Special Communications and Information Protection of Ukraine – 2, the Ministry of Education and Science of Ukraine – 26 higher education institutions and 1 scientific institution, as well as 2 institutions of

the Ministry of Social Policy of Ukraine. In 2021, 3,665 technologies were transferred by the main managers of budget funds, which is an increase of 104.3% compared to 2020, for a total amount of UAH 198.01 million. Universities transferred 1,230 technologies, which is 174.55% more than in 2020, for a total amount of UAH 202.94 million, which is more than 10 times higher than in 2020 [Informational and analytical note (2021)].

The largest share of revenues from the transfer of technologies was made up of contracts for the transfer of the results of scientific research and development, which amounts to 72.17% or 142.90 million UAH, in particular, in universities - 30.89% or 61.16 million UAH. Revenues from the transfer of patent rights make up the smallest share, namely 0.59% or UAH 1.17 million, and revenues from the transfer of know-how and technology transfer agreements make up 3.42% or UAH 6.77 million.

The analysis of the volumes of technology transfer of Ukraine demonstrates that the number of know-how transfer agreements and technology transfer agreements has almost doubled. Revenues from licenses for the use of inventions, industrial designs and utility models amount to 23.82%. This shows that the existing innovation system in Ukraine does not meet the requirements of effective commercialization of national intellectual property, use of the latest foreign technologies, and attraction of investments to finance innovation programs [Pedchenko N. & Franko L. (2022)].

Thus, it can be concluded that Ukraine needs an updated state innovation policy that takes into account the influence of the Industry 4.0 environment, encourages the development and implementation of new technologies in various industries to increase the competitiveness of the Ukrainian economy.

References:

1. Halili Z. (2020). Identifying and ranking appropriate strategies for effective technology transfer in the automotive industry: Evidence from Iran. *Technology in Society*. № 62. Retrieved from: <https://doi.org/10.1016/j.techsoc.2020.101264>
2. Industry leaders are driving the adoption of advanced manufacturing technologies. *World Economic Forum* (2022). Retrieved from: URL: <https://www.weforum.org/impact/advanced-technologies-manufacturing-factories-scaling-innovations/>
3. Industry 4.0: 7 Real-World Examples of Digital Manufacturing in Action (2019). Retrieved from: URL : <https://amfg.ai/2019/03/28/industry-4-0-7-real-world-examples-of-digital-manufacturing-in-action/>
4. Informational and analytical note on the impact of activities in the field of technology transfer on the financial condition of enterprises, institutions and organizations (2021). Retrieved from: URL:

<https://mon.gov.ua/storage/app/media/nauka/2022/Transefer.tekhnolohiy.2022/16.08.2022/Zvit.vplyv.na.finstan.u.2021.rotsi.sayt.MON-16.08.22.pdf>

5. Kumar V., Kumar U. & Persaud A. (1999). Building technological capability through importing technology: the case of Indonesian manufacturing industry, *J. Technol. Tran.* 24 81–96. Retrieved from: <https://doi.org/10.1023/A:1007728921126>

6. Ministry of Foreign Affairs of Japan (2020). Long-term strategy under the Paris Agreement. Retrieved from: <https://www.mofa.go.jp/files/000652983.pdf>

7. Pedchenko N. & Franko L. (2022) State policy of intellectual property protection as a tool for stimulating innovative development of the national economy. *PUET scientific bulletin (Index Copernicus, etc.)*. 1 (105). C. 106-114. Retrieved from: <http://dspace.puet.edu.ua/handle/123456789/1229/>

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