

## THE ROLE OF FINANCIAL INCLUSION IN FOSTERING ECO-ENTREPRENEURSHIP WITHIN THE DIGITAL ECONOMY

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### ABSTRACT

Research into the interaction between eco-entrepreneurship and financial inclusion is a timely task for identifying the processes and trends occurring in today's digital economy. This study aims to justify modern theoretical and methodological approaches, as well as practical principles, for identifying the problems of promoting financial inclusion, which is the driving force behind the development of eco-entrepreneurship in the era of digital transformations. It considers global and domestic trends in the digitisation of the economy and financial security. The study presents a comprehensive analysis of financial inclusion, particularly its role in stimulating eco-entrepreneurship and contributing to socio-economic growth in the digital age. It considers that digital financial inclusion improves financial literacy, ensures access to financial services for vulnerable groups, and encourages investment in sustainable development. The research results demonstrate that eco-entrepreneurship is a multifaceted approach to business, encompassing all aspects of a company's activities to reduce the anthropogenic impact on nature. The data analysis has allowed for the formulation of critical provisions for conducting environmentally responsible business, the evaluation of its impact on economic development and the social sphere, and the highlighting of the challenges and opportunities for developing eco-entrepreneurship based on financial inclusion in the digital economy.

**Keywords:** digital economy, green technologies, financial security, financial inclusion, eco-entrepreneurship.

### INTRODUCTION

The intellectual development of the economy is one of the most important drivers of growth and competitiveness both on the international stage and within individual countries. The transition from an industrial economy to a knowledge-based economy is characterised by a shift in emphasis from material assets to intangible ones, such as patents, know-how, brands, and human resources, which, when combined with digital technologies, create a new economic reality (Kalina & Khang, 2024). The spread of digital technologies in business leads to the emergence of new financial models, tools, and risks, requiring businesses to engage in continuous learning and development. Digital transformation in the financial market catalyses economic growth, providing individuals with new opportunities to manage finances and offering businesses the means to achieve high results. Digital transformation must encompass all spheres of society, from the economy to social relations, to ensure competitiveness in the modern world. It has significantly affected all aspects of life, including finance: on the one hand, it has opened up

numerous new opportunities for conducting financial operations, and on the other, it has created new threats to financial security (Kraus et al., 2022a). The issue of effectively implementing financial inclusion, considering the strategy of sustainable development that prevails in the global world, remains relevant. Encouraging the creation and development of enterprises that combine economic efficiency with environmental responsibility and social good is one of the most effective ways to implement this concept. That is why, today, eco-entrepreneurship is a strategic initiative aimed at harmonising economic interests with environmental requirements, stimulating innovation, creating new jobs, and contributing to the development of a green economy (Wang et al., 2022). Given the growing global environmental challenges and the need to transition to a green economy, developing eco-entrepreneurship worldwide is strategically essential.

#### ***Literature review***

The digital economy is based on information and communication technologies, as well as digital technologies, which are rapidly developing and spreading, affecting the traditional economy (Drinke et al., 2024). Digital technologies allow businesses to scale beyond traditional markets and distribution channels. Goldfarb and Tucker (2019) emphasise that this is not just about using digital technologies in the economy but a more profound transformation that changes the nature of business, consumption, and human interaction. Therefore, a priority task for businesses today is digital transformation, which helps optimise business processes, save resources, improve the quality of goods and services, and enter new markets (Shevchenko et al., 2023). Online commerce, artificial intelligence, and big data help companies achieve global scale. Financial tools and services in digital transformation are discussed in the work of Gallego-Losada et al. (2022). The impact of digital technologies on financial security has been studied by Baddam et al. (2023). Previously, digital tools were perceived as means of simple communication, but with the development of artificial intelligence, they have become tools for data analysis, process automation, and decision-making. As Kalina and Khang (2024) explore, artificial intelligence allows digital tools to understand natural language, learn from data, and perform complex tasks that were previously only accessible to humans, making AI one of the most relevant tools in digital transformation. Digital technologies promote financial inclusion, providing millions worldwide access to financial products and services, as Gabor and Brooks (2017) noted. Defining the economic essence of financial inclusivity is impossible without identifying the factors that affect it in the digital world (Demirguc-Kunt et al., 2017). Kraus et al. (2022b) propose using a three-dimensional model to assess the level of financial inclusion: availability, usage, and quality. This approach allows for a more accurate identification of problematic areas and the development of effective measures to enhance financial inclusion.

International organisations such as the World Bank and the G20 recognise that financial inclusion is a necessary condition for achieving global development goals so that every person has the opportunity to participate in economic life, accumulate savings, receive loans, and protect themselves from financial risks (Naumenkova et al., 2023). Using digital technologies to ensure financial inclusivity and accelerate the achievement of global goals reduces the financial gap through digital innovations (Tay et al., 2022; Zherdetska, 2023). The growing awareness of environmental problems and the limited availability of natural resources requires rethinking traditional economic development models. Without a transition to a sustainable economy, we risk facing global catastrophes and environmental degradation (Iacobuță et al., 2022). The post-pandemic era has seen an increased focus on corporate social responsibility and investment in projects that contribute to achieving sustainable development goals, leading to significant changes in the financial and entrepreneurial sectors (Quatrini, 2021) and the emergence of a new comprehensive economic development model, offering an alternative to the traditional linear economy. Lindgren (2024) identifies that the circular economy is indeed one of the most relevant trends of modern times. It offers a radically new approach to production and consumption, where waste becomes a resource, and products are designed with their future life in mind.

***The circular economy and eco-businesses are closely interconnected.*** The development of eco-businesses within the framework of the circular economy is an essential step towards creating a more sustainable future. This interconnection stems from the fundamental principles of both concepts, particularly the practice of conducting environmentally responsible business, as highlighted in the works of Demirel et al. (2017), Magalhães (2021) and Marcone (2024). The rise in environmental consciousness has fostered an innovative approach to business that combines economic success with environmental preservation – eco-entrepreneurship. As Schaltegger (2002) and Wang et al. (2022) note, eco-entrepreneurs are people who see business opportunities in solving environmental problems, creating products and services that have a minor negative impact on nature and often contribute to its restoration. The creation and implementation of innovative technologies aimed at environmental conservation, such as environmentally friendly extraction and processing methods and the production of eco-friendly products, have become powerful drivers for the development of eco-entrepreneurship in countries with strong economies (Berdiev, 2024; Poyasnik, 2023). However, the path to creating a livable environment lies in actively implementing ecological

principles into business processes in all countries, especially those experiencing military conflicts and other global challenges. The study aims to substantiate modern theoretical and methodological approaches and practical foundations for identifying the problems of stimulating financial inclusion, which is the driving force behind the development of eco-entrepreneurship in the digital transformation era. It will consider global and domestic trends in the development of digitalisation of the economy and financial security.

## RESEARCH METHODS

As a result of the economic and statistical research conducted using methods of comparative analysis, aggregation, and integral assessment, an evaluation of the level of digital financial inclusivity of the population was obtained. The application of statistical methods revealed trends in the development of financial inclusion and socio-ecological areas of entrepreneurship. In contrast, the comparison method allowed for an evaluation of its development trends in a global context. The Global Findex methodology was used to assess financial inclusion, which is based on the analysis of indicators such as the availability of financial services, their quality, usage levels, and overall impact on the population (Global Findex Database). According to the World Bank's approach, the availability of financial services is determined by the presence of physical branches and online platforms, service quality, consumer understanding of their financial rights, and the impact of financial products on their lives (The World Bank, n.d.; National Bank of Ukraine, n.d.). A comprehensive analysis was conducted to gain a deeper understanding of the essence and mechanisms of eco-entrepreneurship within the sustainable development system, including applying induction, deduction, generalisation, and abstraction methods. Using generalisation methods, the article analyses the theoretical and methodological foundations of the digitisation of financial inclusion and its impact on ecological initiatives, which allowed for the formulation of summarised conclusions regarding the ways of implementing sustainable development principles, using the example of eco-enterprises (Shahzadi et al., 2024). Proposals for supporting eco-entrepreneurship were developed based on a comprehensive analysis that combined structural and logical approaches.

## RESULTS

Digital innovations open new horizons for ensuring access to financial services, particularly for those who face various barriers when trying to obtain them. The financial sector's digital transformation enables customers to access a full range of financial services online, providing a high level of convenience and efficiency without the need to visit physical bank branches. It ensures fast, convenient, and accessible financial services for a wide range of the population. Everyone has the right to use financial tools, regardless of their social status or geographical location. Financial inclusion in the digital age is integral to sustainable development, combining economic growth with social justice. Financial inclusion is dynamic and constantly evolving, with its meaning refined over time. Five key institutions introduced the term "financial inclusion" at the GPMI conference. Financial "inclusiveness" is a process that provides access to financial products and ensures an understanding of their functioning and safe usage. It has three main dimensions that form its structural basis (Figure 1).



Figure 1. A Three-Dimensional Model of the Structural Framework for Financial Inclusion

Source: compiled by the author based on (Kraus et al., 2022a).

Today’s relevant financial tool involves creating an environment where every citizen can obtain necessary financial services at a reasonable price and without excessive bureaucratic barriers. Thanks to the digitisation of the financial sector and the disappearance of cash, financial services are becoming more accessible to an increasing number of people, overcoming geographical and social barriers (Naumenkova et al., 2023).

The processes of globalisation, particularly in the economic and financial spheres, have sharply raised the issue of financial services accessibility for all segments of the population, both nationally and internationally. The World Bank’s assessment indicates that several developed countries, including Denmark, Sweden, Norway, the Netherlands, and Australia, have already reached such a level of financial sector development where all adult citizens have access to essential financial services (Figure 2).

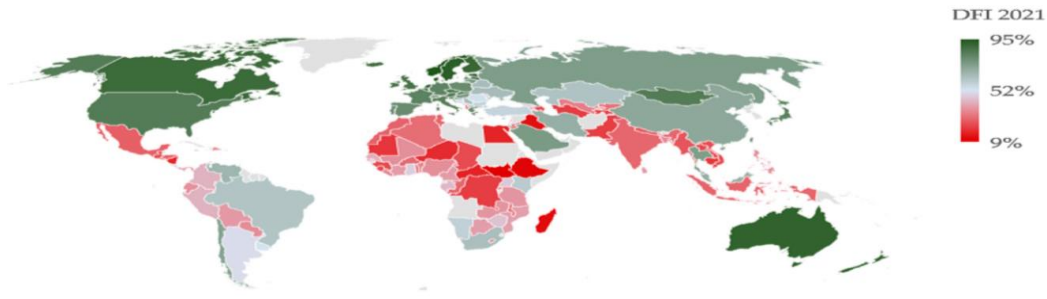


Figure 2. Results of Digital Financial Inclusion in 2021  
 Source: (Global Financial Inclusion, n.d.)

Financial inclusion involves providing a full range of financial services to all population segments under accessible conditions. Digital financial tools, such as mobile apps and online platforms, have enabled millions of people, particularly in regions with limited resources and low living standards, to access financial services that were previously unavailable. This process was significantly accelerated by the COVID-19 pandemic, as evidenced by the Global Findex 2021 study data shown in Figure 3.

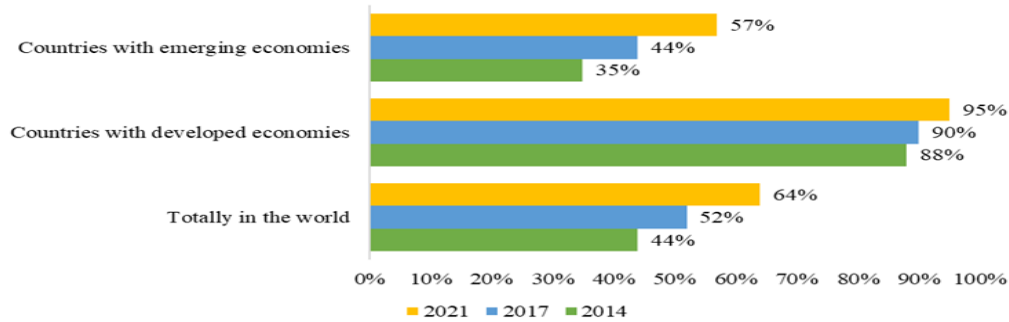


Figure 3. Trends in Using Digital Channels to Make and Receive Payments  
 Among Adults (15+) in 2014–2021. Source: Global Financial Inclusion, n.d.

Ensuring adequate access to financial services involves creating conditions where clients, regardless of their financial status and level of financial literacy, can obtain the necessary financial services at an affordable price and under conditions convenient for them. This, in turn, encourages the transition from informal to formal financial instruments (Gabor & Brooks, 2017).

Inclusive growth requires systemic economic and societal changes to overcome inequalities and ensure social justice. Increasing financial inclusion benefits everyone: the state, businesses, and citizens. Expanding financial inclusion improves living standards by providing access to financial services, enabling people to increase their incomes, manage their assets more effectively, and protect themselves from financial risks such as unemployment, illness, or natural disasters (Tay et al., 2022). This path should become a shared choice for all participants in the financial sector. The successful implementation of the programme requires active participation from the state, financial institutions, and intermediaries. Integrating digital solutions into financial inclusion processes helps reduce the costs of providing financial services, highlighting several advantages (Figure 4).

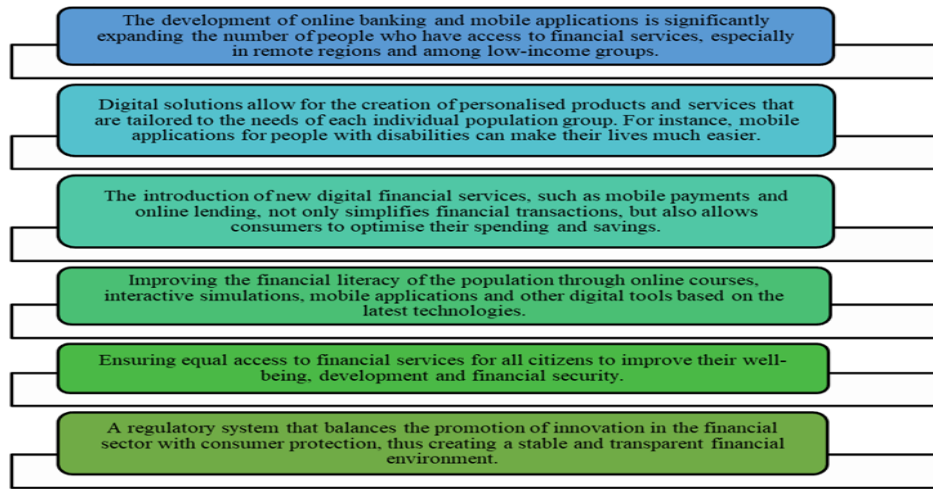


Figure 4. Synergy Benefits of Financial Inclusion and Digitalisation.  
 Source: compiled by the author based on (Zherdetska, 2023).

Among the tools capable of ensuring the transition to a sustainable economy, eco-entrepreneurship development holds a special place. To optimise living conditions for current and future generations, businesses in every country must reorient their activities towards ecological principles, minimising the negative environmental impact. Creating and applying environmentally friendly technologies contributed to environmental preservation and created new prospects for economic development, stimulating eco-entrepreneurship. Modern technologies provide “green” businesses with unlimited development opportunities, from using renewable energy sources and implementing energy-efficient solutions to applying artificial intelligence in waste management and developing intelligent agriculture. In the context of global environmental challenges, this is becoming a priority area of development worldwide, particularly regarding the “carbon” issue (Figure 5).

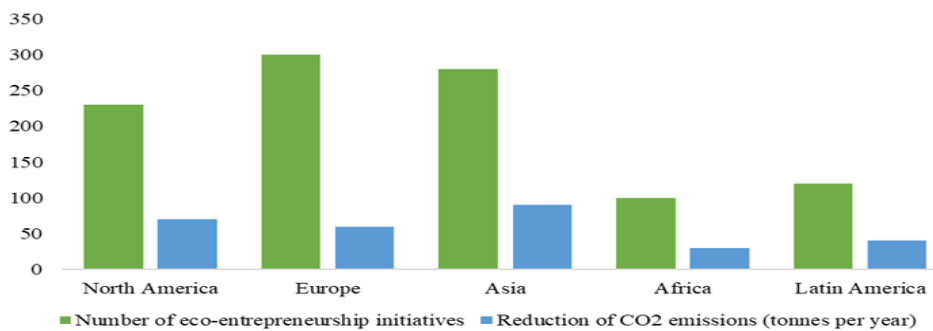


Figure 5. Eco-Entrepreneurship Initiatives Worldwide, 2022.  
 Source: (Prokopenko et al., 2024).

Research has proven that eco-entrepreneurship is a driving force for the transition to sustainable development. It combines economic efficiency through modern digital financial inclusion tools with environmental responsibility and social justice. Businesses focused on solving social and environmental problems contribute to improving the quality of life and preserving the planet for future generations (Schaltegger, 2002). Implementing digital technologies in eco-entrepreneurship enhances enterprises’ competitiveness by reducing production costs, improving product quality, and facilitating distribution, thus fostering the growth of environmentally friendly businesses. Eco-entrepreneurship is not just a trend but a strategy that allows companies to generate profit, build a positive image, and make a difference in the world. This phenomenon emerged in response to pressing environmental issues and the understanding that development must be sustainable, considering the needs of both current and future generations (Demirel et al., 2017). Environmental innovations drive the creation of new, eco-friendly products and services in high market demand. This conclusion was reached by substantiating the eco-entrepreneurship’s key characteristics and areas (Figure 6).

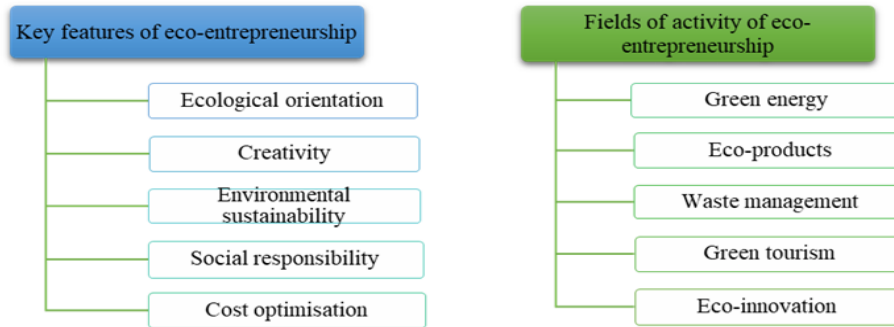


Figure 6. Key Features and Fields of Activity of Eco- Eco-Entrepreneurship.

Source: compiled by the author based on (Berdiev, 2024).

Innovative technologies provide companies with tools to analyse and optimise all stages of production, allowing for cost reduction and a decreased environmental footprint. Modern digital technologies help businesses transition to a circular economy and create products with a reduced impact on the environment:

- Directing investments towards expanding the use of solar, wind, hydro energy, and biomass is strategically vital for any company striving to achieve sustainable development and a positive environmental impact.
- Efficient water resource management, including collecting and using rainwater, is an integral part of modern business concerned with the environment. It reduces strain on natural water sources and ensures sustainable business operations.
- Systems that enable efficient planning, distribution, and control of energy resources, such as intelligent energy management systems, help optimise the operation of energy grids and reduce electricity costs.
- Modern air and water purification methods effectively remove pollutants through various technologies, such as filtration, absorption, and catalytic processes.
- Effective waste management is a critical element of green business. It ensures the conservation of natural resources and reduces the ecological footprint.
- The use of a range of digital tools based on the Internet of Things, artificial intelligence, and sensors to automate and optimise production processes in the agricultural sector.
- As a driving force of innovation, artificial intelligence allows green businesses to seek effective strategies to address pressing environmental issues such as global warming and resource scarcity.
- Extensive data analysis enables the transformation of raw data into valuable insights about consumer habits, market trends, and the impact of company activities on the environment, which drives strategic planning in sustainable development.
- Using drones and remote monitoring systems in environmental surveillance helps detect illegal logging, soil erosion, oil spills, and other environmental hazards at early stages, facilitating rapid response and preventing large-scale ecological disasters.
- Green entrepreneurship has become a powerful new force that promotes sustainability and contributes to the economic development of local economies. Eco-entrepreneurship creates a world where everyone has equal opportunities for growth and natural resources are used rationally (Figure 7). Through effective operations and social responsibility, it contributes to economic development and the well-being of all members of society, fostering environmental sustainability and social equality (Iacobuță et al., 2022).



Figure 7. Environmental Entrepreneurship as a Driver of Financial Inclusion and Sustainable Development. Source: compiled by the author based on (Iacobuță et al., 2022).

In developed countries, eco-entrepreneurship is an integrated part of the economy, whereas, in some other countries, it still operates within the framework of individual initiatives and projects. Despite several positive changes in



environmental legislation, the actual pace of implementing ecological practices, for example, in Ukraine, remains insufficient to achieve the set environmental goals (Figure 8).

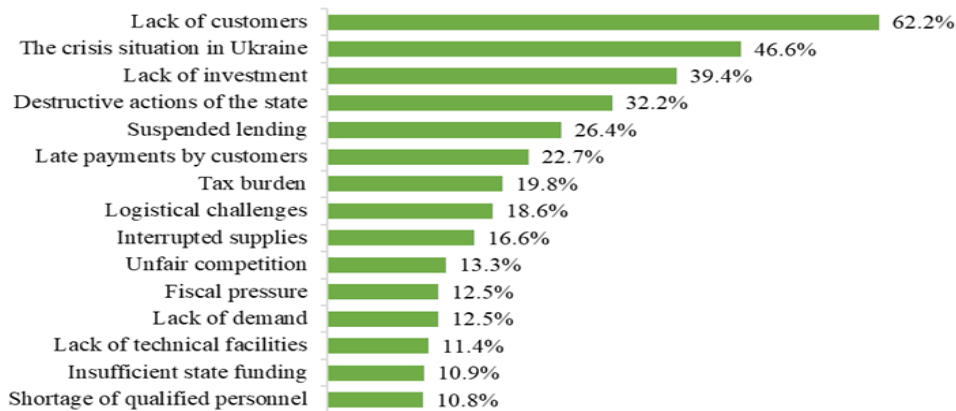


Figure 8. Current Issues of Eco-Entrepreneurship in Ukraine  
Source: (Poyasnik, 2023)

Most businesses do not adhere to environmental standards, which degrades the environment, depletes natural resources, and triggers climate change, posing a threat to future generations worldwide. However, there is always a unique opportunity to take advantage of advanced European developments in green business to build a greener and more sustainable economy (Poyasnik, 2023). Geopolitical and local conflicts are becoming the main obstacles to inclusive development, as they disproportionately affect vulnerable populations and lead to environmental crises.

Although inclusive development is widespread, a significant gap exists between declarations and actual actions in eco-entrepreneurship. At the same time, digital transformation creates unprecedented opportunities to strengthen these connections. Balancing its three components in actual practice is a challenging task that requires the development of a set of measures that take into account the interconnections and interdependencies between them, namely: Creating a favourable regulatory environment by simplifying registration procedures and tax conditions for businesses involved in eco-friendly production. Developing digital infrastructure to ensure internet access in remote regions and supporting the development of digital financial services. Increasing financial literacy through information campaigns to promote financial tools and support eco-entrepreneurship. Encouraging collaboration between the state, businesses, and civil society to create partnerships for developing and implementing eco-entrepreneurship support programmes.

### Discussion

A high level of education and the development of information technologies create a favourable foundation for integration into the global economy. Given the increasing penetration of digital technologies into all spheres of life, the need for digital transformation of the economy is becoming particularly acute. Its goal should be the radical transformation of society, encompassing the economy, social relations, public administration, and traditional markets during the digitisation process (Shevchenko et al., 2023).

Digital transformation opens up new opportunities for businesses to grow and develop, requiring significant investments in technology and human resources. The digital transformation era is characterised by unprecedented change, requiring all market participants—from global corporations to small enterprises—to constantly update their technological solutions and business models (Drinke et al., 2022). Information technologies change our tools and shape new ways of thinking, communicating, and interacting. Digitalisation tools and methods allow organisations to process large volumes of data in real-time, identify new opportunities and risks, and make strategic decisions that ensure long-term growth (Zghurska et al., 2022).

Crises have highlighted the need to improve financial literacy among the population, build trust in financial institutions to ensure the population's economic well-being and create conditions in which financial products and services become accessible, understandable, and convenient for all social groups (Madaleno et al., 2022). Financial inclusion is a process that provides financial services to both affluent and low-income clients, thus contributing to

the financial stability of society as a whole. It involves creating conditions where every person and business can use financial products and services (Kraus et al., 2022b).

Financial inclusion requires active engagement from government bodies, businesses, civil society organisations, and citizens. Digital transformation and financial inclusion open up new opportunities and risks, such as increased dependence on digital technologies, cybersecurity threats, and potential privacy violations, which threaten financial security (Baddam et al., 2023). To successfully achieve financial inclusion, it is also necessary to create an environment where people are motivated to seek financial services, understanding their importance for their future. Socio-economic factors, such as low income or remoteness from urban centres, may limit access to modern technologies and, consequently, the new opportunities they offer (Goldfarb & Tucker, 2019).

An integrated approach to business processes is needed today, including individual environmental initiatives and social and environmental responsibility integration into all aspects of a company's activities. Producing environmentally friendly products, performing environmental work, and providing environmental services are the primary activities of eco-enterprises (Marcone, 2024). Creating a sustainable ecological environment based on financial inclusion is a highly complex task that requires a multifaceted approach at all levels of management. However, to succeed, the development of eco-entrepreneurship must be intensified, as its role in this process is undeniable.

## CONCLUSION

- The analysis allows us to formulate several conclusions and raises new questions requiring further research. The obtained results can serve as a basis for developing new hypotheses and conducting more detailed experiments, opening up broad prospects for further development of the researched topic.
- First, the study has substantiated that the spread of information technologies causes large-scale transformations encompassing all areas of human activity. They create new investment opportunities and ensure economic growth and the expansion of production (Feng et al., 2022). However, as noted in the study, despite its positive aspects, digital transformation creates new challenges related to information security and privacy protection.
- Second, it has been proven that digital and financial inclusion are critical elements of sustainable development, as they are closely linked to the efficiency of the financial sector and contribute to the overall socio-economic growth of the country. Financial inclusion ensures equal opportunities for everyone, where each individual can access financial services that meet their needs and capabilities. Solving this issue requires a systemic approach that involves a comprehensive analysis of the situation, engagement of all stakeholders, and alignment of their efforts. It is essential to understand that financial technologies are a powerful tool for expanding financial accessibility. Therefore, further research is highly relevant to implementing and effectively using financial innovations.
- Third, one of the most critical areas of financial inclusion contributing to the transition to a green economy is the support of eco-enterprises, which create new jobs and contribute to environmental conservation. In today's global challenges, eco-entrepreneurship is becoming increasingly important for ensuring the sustainable development of many countries worldwide. The slow pace of eco-entrepreneurship development in some countries is caused by a complex set of problems, including a lack of business awareness of modern ecological solutions, insufficient government support, economic instability, financial difficulties of enterprises, reduced demand for eco-friendly products and services, disruption of supply chains, and high tax burdens.
- Fourth, the research highlights the dynamic capacity of "green" businesses to address environmental problems and transform the economy and global community. Green entrepreneurs' important role lies in their ability to combine creative thinking with progressive connections. This generates positive changes and paves the way for a more equitable and sustainable world.
- Fifth, implementing modern business technologies stimulates the development of innovative approaches in production, allowing companies to create products with a smaller environmental footprint while increasing their efficiency and competitiveness. By digitising financial inclusion, companies can identify bottlenecks in their production processes, develop more efficient resource management algorithms, and implement eco-friendly technologies, reducing costs and mitigating environmental disruption.



## REFERENCES

1. Baddam P, Yerram S, Varghese A, Janaki, Goda D, Mallipeddi S. (2023). From Cashless Transactions to Cryptocurrencies: Assessing the Impact of Digitalization on Financial Security. *Asian Accounting and Auditing Advancement*, 14, 31–42;
2. Berdiev R. (2024). The essence of ecological entrepreneurship in the conditions of economic inclusion. In: *Innovative development of science, technology and education*. Perfect Publishing;
3. Demirel P, Li QC, Rentocchini F, Tamvada JP. (2017). Born to be green: new insights into the economics and management of green entrepreneurship. *Small Business Economics*, 52(4), 759–771. <https://doi.org/10.1007/s11187-017-9933-z>;
4. Demirguc-Kunt A, Klapper L, Singer D. (2017). *Financial Inclusion and Inclusive Growth: A Review of Recent Empirical Evidence*. Washington, DC: World Bank. <https://doi.org/10.1596/1813-9450-8040>;
5. Drinke Z., Mazhnyk L, Zvirgzdina R, Mokiienko T, Holovash L, Kryshstal H. (2024). Digital economy: opportunities for transformation of entrepreneurial structures. *Scientific Bulletin of the National Mining University*, 1, 140–146. <https://doi.org/10.33271/nvngu/2024-1/140>;
6. Feng S, Zhang R, Li G. (2022). Environmental decentralisation, digital finance and green technology innovation. *Structural Change and Economic Dynamics*, 1, 70–83. <https://doi.org/10.1016/j.strueco.2022.02.008>;
7. Gabor D, Brooks S. (2017). The digital revolution in financial inclusion: International development in the fintech era. *New Political Economy*, 22(4), 423–436. <https://doi.org/10.1080/13563467.2017.1259298>;
8. Gallego-Losada M-J, Montero-Navarro A, García-Abajo E, Gallego-Losada R. (2022). Digital financial inclusion. Visualising the academic literature. *Research in International Business and Finance*, 64, 101862. <https://doi.org/10.1016/j.ribaf.2022.101862>;
10. Global Financial Inclusion. DataBank. (n.d.). DataBank. The World Bank. <https://databank.worldbank.org/source/global-financial-inclusion>;
11. Goldfarb A, Tucker C. (2019). Digital Economics. *Journal of Economic Literature*, 57(1), 3–43. <https://doi.org/10.1257/jel.20171452>;
12. Iacobuță GI, Brandi C, Dzebo A, Elizalde Duron SD. (2022). Aligning climate and sustainable development finance through an SDG lens. The role of development assistance in implementing the Paris Agreement. *Global Environmental Change*, 74, 102509. <https://doi.org/10.1016/j.gloenvcha.2022.102509>;
13. Kalina I, Khang A. (2024). Application of AI-Enabled Digitization Tools for Intellectual Business Development during the Recovery Period of the Economy. *Revolutionizing the AI-Digital Landscape*. (pp. 231–243). Productivity Press. <https://doi.org/10.4324/9781032688305-17>;
14. Kraus K, Kraus N, Pochenchuk G. (2022a). Institutional aspects and digitalisation of financial inclusion in the national economy. *Innovation and Sustainability*, 2, 18–28. <https://doi.org/10.31649/ins.2022.2.18.28>;
15. Kraus K, Kraus N, Shtepa O. (2022b). Practice of the Implementation Cyber Security and Financial Inclusion at the Micro-, Macro- and Global Levels of the Economy. *VUZF Review*, 7(2), 25–40. <https://doi.org/10.38188/2534-9228.22.2.03>;
16. Lindgren P. (2024). Circular Green and Sustainable Business Model Competence Innovation and Development: Challenges with Privacy and GDPR Related to Businesses and Research. *Nordic and Baltic Journal of Information Communications Technologies*, pp. 1–24. <https://doi.org/10.13052/nbjict1902-097x.2024.001>;
17. Madaleno M, Dogan E, Taskin D. (2022). A step forward on sustainability: The nexus of environmental responsibility, green technology, clean energy and green finance. *Energy Economics*, 109, 105945. <https://doi.org/10.1016/j.eneco.2022.105945>;
18. Magalhães N. (2021). The green investment paradigm: Another headlong rush. *Ecological Economics*, 190, 107209. <https://doi.org/10.1016/j.ecolecon.2021.107209>;
19. Marccone MR. (2024). Green Business Model: The Digitization of Sustainability. *Creating New Roles for a Sustainable Economy*. Springer Nature Switzerland. 250 p. [https://doi.org/10.1007/978-3-031-61551-1\\_2](https://doi.org/10.1007/978-3-031-61551-1_2);
20. National Bank of Ukraine. (n.d.). <https://bank.gov.ua/>;

21. Naumenkova S, Mishchenko S, Mishchenko V. (2023). Digital financial inclusion to accelerate the achievement of the sustainable development goals. *Bulletin of Taras Shevchenko National University of Kyiv. Economics*, 222, 102–112. <https://doi.org/10.17721/1728-2667.2023/222-1/13>;
22. Poyasnik G. (2023). The role of ecological entrepreneurship in the conditions of post-war reconstruction. *Economy and society*, 47. <https://doi.org/10.32782/2524-0072/2023-47-11>;
23. Prokopenko O, Chechel A, Koldovskiy A, Kldiashvili M. (2024). Innovative Models of Green Entrepreneurship: Social Impact on Sustainable Development of Local Economies. *Economics. Ecology. Socium*, 8(1), 89–111. <https://doi.org/10.61954/2616-7107/2024.8.1-8>;
24. Quatrini S. (2021). Challenges and opportunities to scale up sustainable finance after the COVID-19 crisis: Lessons and promising innovations from science and practice. *Ecosystem Services*, 48, 101240. <https://doi.org/10.1016/j.ecoser.2020.101240>;
25. Schaltegger S. (2002). A Framework for Ecopreneurship: Leading Bioneers and Environmental Managers to Ecopreneurship. *Greener Management International*, 38;
26. Shahzadi H, Anwar S, Riaz MF, Makhdum MSA. (2024). Financial Inclusion Reimagined: A Comprehensive Index for 75 Global Economies. *RASD Journal of Economics*, 6(2), 576–597. <https://doi.org/10.52131/joe.2024.0602.0225>;
27. Shevchenko I, Lysak O, Zalievska-Shyshak A, Mazur I, Korotun M, Nestor V. (2023). Digital economy in a global context: world experience. *International Journal of Professional Business Review*, 8(4), e01551. <https://doi.org/10.26668/businessreview/2023.v8i4.1551>;
28. Tay L-Y, Tai H-T, Tan G-S. (2022). Digital financial inclusion: A gateway to sustainable development. *Heliyon*, 8(6), <https://doi.org/10.1016/j.heliyon.2022.e09766>;
29. The World Bank (n.d.). The Global Findex Database 2021: Financial Inclusion, Digital Payments, and Resilience in the Age of COVID-19. <https://globalfindex.worldbank.org>;
30. Wang K-H, Zhao Y-X, Jiang C-F, Li Z-Z. (2022). Does green finance inspire sustainable development? Evidence from a global perspective. *Economic Analysis and Policy*, 75, 412–426. <https://doi.org/10.1016/j.eap.2022.06.002>;
31. Zghurska O, Korchynska O, Rubel K, Kubiv S, Tarasiuk A, Holovchenko O. (2022). Digitalisation of the national agro-industrial complex: new challenges, realities and prospects. *Financial and credit activity problems of theory and practice*, 6(47), 388–399. <https://doi.org/10.55643/fcaptp.6.47.2022.3929>;
32. Zherdetska L. (2023). Digital financial inclusion as a factor of socio-economic development. *Scientific Bulletin of Odessa National Economic University*, 11–12(312–313), 108–113. <https://doi.org/10.32680/2409-9260-2023-11-12-312-313-108-113>;