Optimising the Digital Development of Ukraine's Financial Sector for Post-War Recovery

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Abstract

In today's fast-paced global economy, it is crucial to establish a competitive digital financial market to drive economic growth and ensure stability. This market needs to provide consumers with innovative financial products, promote investment, and foster sustainable economic development. The financial sector is instrumental in supporting post-war recovery and development by providing essential resources. Therefore, this study aims to investigate and improve the digital transformation of Ukraine's financial sector to aid in post-war recovery efforts. In order to reach the goal, we will analyse the distinct features of Ukraine's digital financial industry, research the successes of European nations in digitalizing financial services, pinpoint essential elements for the advancement of digital financial services, and evaluate any obstacles hindering the digital transformation in the financial sector. Throughout the study, all objectives were successfully met, demonstrating that Ukraine has the necessary prerequisites for economic recovery after the war. However, in order to attract investment and foster a more positive financial environment, it is crucial to encourage the adoption of digital technologies within the financial sector. Additionally, a strong focus on data protection is essential. The study also emphasized the importance of analysing and implementing European financial sector practices to pinpoint prime areas for digital innovation. The key strategic outcome of the study is the creation of a comprehensive system for the advancement of digital financial services. If fully implemented, this system has the potential to significantly strengthen and enhance Ukraine's financial sector, ultimately improving the quality of financial services offered. It is crucial to not only implement immediate actions to enhance Ukraine's financial sector digitally for post-conflict recovery, but also prioritize long-term strategic planning and initiatives aimed at achieving the strategic goals of digital transformation in the financial industry.

Keywords: Digitalisation, Financial Sector, Financial Services,

Financial Sector Development, Investment, Fundraising, Data Protection, Banking Services.

Introduction

The global economy's shift towards digitalization has become increasingly dependent on the emergence of a competitive digital financial market. The market not only provides consumers with innovative financial products and promotes investment, but also plays a critical role in fostering sustainable economic growth and maintaining financial stability. The financial sector has been at the forefront of this digital transformation, driven by both the technological advancements available and the competitive pressures faced by financial service providers. As a result, there is a growing demand from consumers for faster and more efficient financial services. The introduction and advancement of financial technologies have not only enhanced the availability and quality of financial services for individuals and businesses but have also fostered a more competitive environment and streamlined business processes for all market participants.

The state's focus on addressing the challenges and opportunities in advancing digital financial services is driven by the significant role progress in this field plays in fostering the innovative growth of Ukraine's economy.

The shift towards remote financial services, the creation of novel digital products and platforms, the utilization of new online financial tools, and the establishment of an innovative environment encompassing digital, financial, and institutional elements all contribute to the promotion of innovative finance and overall economic development. Essentially, the digital transformation of the financial sector is a crucial catalyst for driving innovative economic advancement (Lucato et al., 2019; Sermuksnyte-Alesiuniene et al., 2021).

Many modern scholars have thoroughly explored the obstacles linked to the digital shift in the financial sector, exploring its broad economic implications as well as its specific effects on various sectors such as the environment, agriculture, and services. There is a strong focus on tackling the challenge of sustainable development, which aims to harmonize economic progress and ecological protection by adopting information and digital technologies efficiently. Through their research on the implementation of digital financial solutions in diverse national contexts, scholars (Aleksieienko, Poltinina, &Leliuk, 2020; Buss, Oberbeck, & Tullius, 2021; Goncharova, 2020) have underscored the importance of digitizing financial services as a means to mitigate adverse environmental impacts.

Research has investigated the effects of digital financial services on agriculture (Bataev, Koroleva, &Gorovoy, 2019; Fedyshyn et al., 2019; Kholiavko et al., 2021). Some research indicates a correlation between the implementation of digital finance and the expansion of the service sector, with a particular focus on the tourism industry (Cai et al., 2022; Dubyna et al., 2021; Hurzhyi et al., 2022), highlighting a shift towards a service-oriented global economy over production.

Previous research by Soltovski et al. (2020), Tulchynska et al. (2021), and Vives (2019) has highlighted the relationships among digital financial inclusion, technological advancement, environmental factors, and economic development. Additionally, Chen et al. (2020; 2022) and Hryhorash et al. (2022) have examined the effects of financial technology, financial inclusion, institutional quality, and human capital on mineral resource utilisation in Asian countries.

Simultaneously, it is important to recognize the fundamental challenge of the global agenda, which stems from the conflict between the push for sustainable economic growth and the increasing uncertainty brought about by systemic shifts in capitalism, the rise of the information and network economy, and the digital revolution (Kontokosta et al., 2021; Kolinets, 2023; Popelo et al., 2021).

In today's digital age, we see a profound level of flexibility in operations, communication, relationships, and overall changes within the global economy. Torsten Beck (2020) emphasized the profound influence of digital advancements on improving financial inclusivity and discussed the potential advantages and challenges linked to financial technology innovations. He underscored the central characteristic of the modern financial landscape - its constant flux, which influences every aspect of digital

finance, from customer interactions to regulatory frameworks and market competition.

Therefore, it is crucial to investigate the potential and benefits that digital transformation can bring to the modern financial industry and understand how digital resources can be utilized to improve the financial sector during the post-war recovery in Ukraine. The goal of this study is to develop strategies to advance Ukraine's financial sector through digital progress in the aftermath of the war. To achieve this objective, it is important to identify the specific characteristics of digital advancement in the financial sector in Ukraine, analyse the European approach to digital transformation in finance, outline the key components of the framework for enhancing digital financial services, and identify the obstacles hindering the advancement of digital initiatives in the financial sector.

Methodology

The study analyses various components of digital transformation within Ukraine's financial sector following the country's economic reconstruction post-war. By reviewing existing literature, the goal is to categorize approaches for leveraging new digital technologies to enhance financial services and optimize the sector.

Given the complexity and diversity of today's financial industry, finding a universal solution for digitalization is crucial. This necessitates thorough analysis, comprehensive research, and a look into global practices for implementing innovative technologies in financial sector development. In its pursuit of European integration, Ukraine must examine and draw lessons from the experiences of European Union member states. The rapid progress made by the Baltic nations, who have been on a similar path, could offer valuable insights for Ukraine. This study draws on the expertise of reputable national and international scholars, emphasizing recent literature to offer a contemporary perspective on key issues. The analysis also incorporates data from the European Commission and other statistical sources to evaluate the digitalization process.

Ukrainian academics placed special emphasis on literature, providing valuable insights into the nuances of the Ukrainian financial sector and aiding in a deeper understanding of economic and financial development during times of conflict. A combination of general scientific and specialized methods were used to achieve the research goals, with methods of analysis and synthesis employed to study literature and identify trends in digital technology adoption in the financial sector. Systematization, generalization, and criteria analysis were utilized to outline the system for the development of digital financial services in the Ukrainian economy.

In light of the post-war economic growth in Ukraine, priority areas for advancing digital technology in the financial sector were pinpointed. To gain insights into the nature of Ukraine's financial sector and its current state of development, a comprehensive study was carriedout in three distinct stages. This involved a thorough review of existing literature, original research, and the establishment of a framework for the progression of digital financial services. Furthermore, an analysis of European Commission resources was conducted to identify potential strategies for strengthening the digitalization efforts within Ukraine's financial sector.

The analysis placed particular emphasis on the role of institutions, which serve as the guiding principles within society and establishboundaries for interpersonal relationships. These enduring structures play a vital role in reducingunpredictability, promoting stability amidst uncertainty, and shaping the outcomes of transformation processes. It is essential to recognize that the institutional environment sets the parameters for the successful implementation of digital transformations in the financial sector and generates the need for institutional change.

Results

The process of digital transformation has significantly impacted numerous industries, including the financial sector, which has made significant strides in offering remote services during the global pandemic. It is important to highlight that the digitalisation of financial services in Ukraine has created new opportunities for both providers and consumers (Zhou et al., 2021; Martin et al., 2022; Suprunenko, Pylypenko, Trubnik, &Volchenko, 2023).

These benefits encompass the swift collection and analysis of data from diverse sources, advanced analytical capabilities, the automation of repetitive tasks, decreased reliance on human intervention, and a decrease in errors. Additionally, the convenience of storing data in electronic form has been emphasized. Furthermore, emphasis has been placed on the safeguarding of consumer financial data, necessitating increasingly sophisticated and innovative technological solutions annually.

Numerous financial institutions are transitioning towards becoming product-focused IT companies as they offer financial services in a digital setting (Ionescu et al., 2023; Kholod et al., 2021; Sousa, Boranbayeva, Satpayeva, &Gassanova, 2021). In order to uphold their reputation as innovators, these institutions require advanced tools that enable them to develop their own technological products, streamline the time-to-market for new product launches, and ensure the security of their application development. In recent years, several major Ukrainian banks have accelerated their efforts to digitalize business operations and services. The issuance of virtual debit and credit cards has seen a surge as a cutting-edge alternative to traditional plastic cards, particularly during times of martial law when customers may have difficulty visiting physical bank branches. The current state of digital advancement in the Ukrainian economy indicates that the progress of digital technologies will continue even in challenging circumstances like martial law. This stance is supported by data from the Ukrainian Institute for the Future (2024) - see Table 1 for details.

Table 1. Indicators of digitalisation of the Ukrainian economy

Indicator	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Domestic market (ICT consumption), billion USD	2	2,5	3	4,5	6	8	10	12	14	16
Impact on GDP, percentage of growth	0,5	1	2	3,5	4,5	6	7,5	9	11	14
Percentage of the digital economy in total GDP.	3	5	8	11	15	20	28	40	52	65

Source: Ukrainian Institute for the Future (2024)

Based on the examination of the statistical data, it is evident that the importance of digital advancement in the Ukrainian economy will steadily increase. Consequently, the significance of utilizing digital tools for the country's recovery post-conflict will also rise. This is because focusing on digital development and finance will be vital in driving substantial GDP growth and providing essential resources for the nation'sreconstructionefforts.

In particular, JSC CB PrivatBank and JSC Universal Bank have significantly enhanced the options for opting out of physical cards in favor of virtual cards (Tarasenko et al., 2022). To enhance the features of their offerings, developers, at the behest of financial service providers, utilize Application Programming Interfaces (APIs) (Kholiavko et al., 2021; Krylov et al., 2022). APIs allow various applications to communicate with each other, access business services, exchange information, and enhance the security of software development in the financial industry. Standardizing products through APIs simplifies and expedites the introduction of new products and services. The open API approach also facilitates interactions between bank applications and

partners, providing tools for managing and developing APIs, as well as managing partnerships and communities.

After the war, Ukraine's main focus should be on establishing financial services that will attract investment to aid in the recovery and growth of various sectors of the economy. As the country shifts its attention towards economic growth post-war, it is crucial to delve into cutting-edge digital financial services that will spur the advancement of new financial technologies.

Table 1 highlights the main sectors where digital services can be utilized to enhance the financial industry. By implementing a system of digital financial services, Ukraine can enhance collaboration among stakeholders and establish clear benchmarks for measuring the progress of digital transformation in financial services.

The authors propose that the system should consist of various subsystems including a list of digital financial services, regulatory framework, availability of digital financial services, market participants, platforms, human resources and education, information security, cybersecurity, and other related components. Furthermore, it is crucial to assess how innovative development initiatives will influence the formation of interconnected subsystems that are essential for driving economic recovery in the state after a conflict. To evaluate the level of digitalisation and financial service development within each subsystem, it is essential to refer to Table 1 for key indicators such as the achievement of national programme goals, accessibility of digital financial services, assessment of human resources in the digital finance sector, and more.

Table 1. Digital financial services development system

Subsystems	Elements	Criteria for assessing the level of digitalisation and development
A set of types of financial services	online investments; online lending; online mortgage; factoring; depository services; banking services; forfaiting; brokerage and exchange services; marketplace; insurance, etc.	percentage of digital investments in the total investment volume; percentage of online loans issued; percentage of mortgage lending issued online; percentage of digital financial services in the overall volume of financial services (broken down by type of service), etc.
Focus and accessibility of digital services	infrastructure (information, digital, telecommunications); Internet accessibility; financial literacy of the population; digital accessibility of financial services	the share of people who use the Internet; share of households with a computer and Internet access; share of fixed broadband subscribers and telephone lines; population covered by the mobile network (4G, 5G); share of subscribers, mobile communications; price, quality (assortment), mental (useful) availability of financial services; assessment of the degree of knowledge, skills, and abilities to apply and use financial instruments, financial services, etc.

Subsystems	Elements	Criteria for assessing the level of digitalisation and development
Consumers of financial services	Individuals; small, medium, and large businesses; institutions (trade, payment, accounting, other financial institutions, information, digital, and innovation institutions); state institutions	the volume of customers utilizing digital financial services; total count of small, medium, and large businesses engaged in the digital financial services industry; quantity of financial institutions categorized by type; total number of governmental entities involved in the digital financial services market.
The setting for promoting financial services	offerings in financial marketplaces; support services for small and medium-sized businesses; banking solutions; digital state initiatives and projects by the Ministry of Digital Transformation; advancement of the Diia project and other popular e-banking undertakings	the quantity of digital services; the quantity of digital platforms; the percentage of digital financial services and platforms in various sectors of the economy; the quantity of users of digital financial services and platforms; the quantity of recently developed digital financial services and platforms; the amount of digital financial services delivered, etc.
Stimulating investment activity in digital financial services	increased international market access; oversight of broker operations; encouraging cross-border investment influx	the volume of foreign investment; share of investments in capital expenditures of enterprises; share of profit allocated to investments
Developing an educational space for the digitalisation of financial services	human resources in the field of digital financial services; educational potential in the field of digital financial services	share of labour market personnel with digital competencies in financial services; the share of educational institutions that provide staff for the digital financial services market; the number of students currently acquiring digital competencies in financial services, etc.
Information security as a parallel direction in the development of the financial sector	cybersecurity specialists; entities specialising in information, financial and cyber security	mitigating cyber threats in the financial industry; the level of protection against cybercrime in the financial sector; the number of specialists employed in the field of cybersecurity; number of entities specialising in information, financial and cyber security, etc.

Source: Based on the compilation by the author(Kulkarni et al., 2021; Oneshko& Pashchuk, 2021; Ostropolska, 2021)

Table 1 illustrates the wide range of applications of digital technologies in the financial industry. Thus, it is essential for most financial sector professionals to establish the necessary conditions for the advancement of digital services. While companies may be hesitant to invest in digitalization during times of martial law, it is imperative for their long-term survival and growth during the period of post-war recovery.

When exploring the advancement of digitization within the digital realm, it is valuable to consider the insights provided by the European Commission regarding the practices of prominent European nations. The Digital Economy and Society Index (DESI) for 2022 offers a comprehensive analysis of the digital initiatives and achievements of leading European Union countries, as detailed in Table 2.

Table 2. Multi-country projects in the RRPs

	AT	BE	BG	CY	CZ	DE	DK	EE	EL	ES	FI	FR	HR	HU	EI	IT	LT	LU	LV	MT	NL	PL	PT	RO	SE	SI	SK	Total
Microelectronics	-	-			-	-				-	-	-				-			-					-		-	-	12
European Digital Innovation Hubs					-					-			-		-	-			-				-				-	8
5G corridors					-				-	-						-	-		-									6
Cloud						-				-		-				-			-			-				-		7
Euro Quantum Communication Infrastructures					-				-									-								-		4
Euro High Perf. Computing									-							-											-	3
Connected public administration									-				-										-					3
Genome of Europe										-							-		-									3
Submarine cables				-					-																			2
Blockchain (EBSI)					-																					-		2
Security Operation Centres									-							-												2

	AT	BE	BG	CY	CZ	DE	DK	EE	EL	ES	FI	FR	HR	HU	EI	IT	LT	LU	LV	MT	NL	PL	PT	RO	SE	SI	SK	Total
Skills, education																												0
Other					-			-	-	-	-					-			-					-			-	9

Source: Digital Economy and Society Index (DESI) 2022 (2023)

The European example demonstrates that digitalization, especially in the financial sector, is intertwined with other aspects of business and government development. It is evident that digitalization has now become an essential component of societal functioning. Therefore, for Ukraine to establish a successful digital financial sector, it is imperative to consider the unique historical factors that have shaped the country's financial and institutional frameworks, which have been significantly impacted by the transformation of the Ukrainian economy.

The concept of inversion in economic development was originally proposed by Hrytsenko (1997), highlighting the shift away from traditional Western models of market evolution. Hrytsenko argues that Ukraine has deviated from the norm by moving from state ownership to private ownership, from centralized planning to competition, and from state-mandated pricing to a free market (Hrytsenko, 2016). This inversion is evident in the country's rapid embrace of digital financial tools such as digital banking and cashless transactions, skipping the traditional stages of market development. The transition to a market economy in Ukraine has not followed the expected trajectory, illustrating a unique approach to economic growth.

Simultaneously, the dynamics among key players in the financial sector including financial intermediaries, government bodies, and consumers of financial products appear to be skewed, with financial operators holding a noticeable upper hand. In the context of the digital age, the traditional dominance of banks over financial service users in Ukraine has been solidified by tailored strategies that promote non-cash transactions, ultimately entrenching the supremacy of banking institutions.

It is crucial to take into account Ukraine's volatile economic situation, exacerbated by nearly two years of war, when creating specific financial and institutional mechanisms to support economic activity that primarily benefit economic entities.

The digital transition within Ukraine's financial sector presents both promising opportunities and significant challenges. While Ukraine is considered a leader in digital banking, neobanking, cryptocurrency transactions, and their institutionalization, this advancement proved beneficial in averting financial panic during the initial months of war. However, the rapid digitalization of the financial sector has also resulted in trends where financial institutions, solidifying their dominant position, may overlook the importance of supporting economic recovery initiatives.

In the present day, financial institutions are undergoing a significant change from their traditional role of redistributing financial resources to becoming payment facilitators. This transformation is driven by advancements in digital technology and the emergence of new business models tailored to this shift. As demonstrated by Sysoenko and Karlyuka's research (2022), the focus of banking institutions, especially in regard to lending to businesses, is shifting towards fee-based services rather than traditional lending activities. Consequently, the success of the post-war investment process in this evolving landscape hinges

on the implementation of effective state policies that encourage private banking innovation.

Yet another challenge hindering the organization of the post-war recovery process is the deeply rooted connection between Ukrainian banks and the government. This connection is evident in the banks' active participation in government securities, which has a detrimental effect on lending activities. This practice diverts financial resources and essentially transforms financial institutions into self-serving entities. In April 2023, the introduction of three-month certificates of deposit at a 25% annual interest rate led to a 7.9% increase in Ukrainian banks' investments in securities and long-term assets, totaling UAH 78.5 billion, reaching UAH 1 trillion 71.6 billion. This marked the first time since at least 2016 that investments in securities surpassed loans to customers, according to Interfax (2023). This shift is a culmination of ongoing trends in the deepening investment ties between banks and the state within the Ukrainian financial and institutional framework.

An important consideration is the potential barriers that may impede the progress of digital advancements in the financial industry. Ukraine faces a strategic risk if it fails to account for its unique financial and institutional characteristics, as well as its economic recovery requirements. In response to this, Ukraine is ramping up its focus on digital lending practices, with a series of events such as conferences and seminars aimed at promoting the use of digital technologies in the financial industry. The National Institute for Strategic Studies is taking the lead by hosting conferences on the Digital Transformation of the Ukrainian Economy, emphasizing the need to speed up digital development and broaden access to digital financial services, including lending. However, it is crucial to be mindful of the potential risks associated with digital lending, as seen in other developing countries, such as increased household debt and restricted market opportunities (Kaffenberger &Totolo, 2018). Excessive debt can lead to a shift in economic focus towards meeting short-term loan obligations, thus jeopardizing long-term social sustainability.

The risks in Ukraine are evident in the data provided by the Ukrainian Association of Fintech and Innovation Companies, which shows that consumer lending is a strong sector despite the adversities brought on by the COVID-19 pandemic and continued conflict. This trend is occurring amidst a backdrop of decreasing real incomes and increasing unemployment rates. Research by the Centre for Economic Strategy shows that real incomes of Ukrainian citizens declined approximately 21% between February and December 2022, while around one-third of the working-age population is without employment (Union of Education and Science Employees of Ukraine, 2023). These circumstances, under martial law, not only pose a threat to financial stability but also have the potential to trigger a socio-humanitarian crisis.

The challenge facing the reconstruction process is the high risk involved in the financial and institutional environment due to unequal information, unclear regulatory boundaries for digital financial institutions, and their exploitative behavior towards consumers. Despite slow progress in strengthening bank liability and consumer protection, the risks posed by digital opportunism in financial institutions are on the rise, evident from the complaints of consumers. Furthermore, the push towards a cashless economy and the central bank's plan to introduce a digital currency without considering consumer needs and the current payment system are also risky moves. These drastic changes could have negative impacts on the Ukrainian economy, especially during times of instability like martial law when there is a surge in demand for cash. It is essential to consider national interests, the realities of martial law, and the potential for long-term financial and economic instability post-war when making decisions about the payment landscape.

To address the conflicting aspects of digital financial changes and steer the financial industry towards rebuilding Ukraine's economy, it is imperative to consider the unique characteristics of the Ukrainian economic and institutional landscape, as well as the advanced technological tools offered by the digital economy. Meeting the following criteria is essential for this process:

I. Reinstating the traditional role of the financial sector, which is to serve as a conduit for facilitating economic transactions, allocating financial resources to support

savings, capital growth, investment initiatives, and economic reconstruction.

For this one must create innovative financial and institutional structures in the form of digital investment platforms. These platforms should be transparent, user-friendly, and efficient in order to convert excess funds from organizations into financial resources for recovery efforts. The initial step in achieving the goals of post-war reconstruction, promoting digitalization in public policy and management, attracting private investment in Ukraine, and fostering entrepreneurship is the establishment of a digital state development institution. This institution should have a transparent and user-friendly interface, making the process of funding investments and distributing financial resources for recovery as effective and transparent as possible. Funds collected from stakeholders will be allocated to post-war recovery projects, with detailed information on these projects available in the institution's transparent database. A digital bank has the potential to serve as the core of an ecosystem where investment activities can thrive. Through its digital platform, the bank can offer a user-friendly and accessible tool for establishing a sustainable financial landscape that fosters trust in government policies.

II.The prioritization of national interests and the advancement of financial autonomy are crucial factors to consider, particularly in the realm of digital monetary reforms such as the implementation of a central bank digital currency (CBDC). Despite the global trend towards adopting CBDCs (Brazil to Discuss Digital Currency Usage for Financial Transactions in G20, 2023), it is crucial to prioritize national interests when approaching this issue. It is important to note that the introduction of CBDCs in developing nations has been largely experimental (Ree, 2023), and in cases of economic and monetary instability, as well as a lack of public trust in the government, it has led to severe economic and social upheaval. This is evident in the example of Nigeria, where the introduction of a CBDC not only faced opposition from the population but also resulted in social unrest.

Therefore, careful consideration should be given to the gradual implementation of a Central Bank Digital Currency (CBDC) within the Ukrainian financial and institutional system, emphasizing strategic digital advancements in the monetary sector. The development of the e-Hryvnia Concept, which serves as the foundation for the introduction of the CBDC in Ukraine, necessitates:

1. establishing the essential economic and monetary foundations for the launch of the digital currency, with a focus on ensuring stability, fostering trust in the central bank's monetary decisions, and supporting government initiatives for a smooth and effective introduction;
2. outlining national priorities for deploying the CBDC, minimizing external regulatory influences, and avoiding hasty, experimental approaches;
3. identifying a practical strategy for integrating the CBDC, potentially through social transfer mechanisms, with a primary focus on supporting market participants rather than imposing restrictive measures, in order to foster a transparent economic environment conducive to effective financial oversight

III. Utilise top international strategies for digital financial advancement to facilitate Ukraine's successful integration into the global digital landscape. In the modern era, there is a significant push to establish a network of inclusive payment avenues and establish standardized norms that underpin the financial sector. The key objective is to achieve widespread use through global interoperability and approval across various payment platforms; for this reason, shared technical and regulatory guidelines are imperative. As a result, it is crucial to conduct experiments to understand how Central Bank Digital Currencies (CBDCs) are transmitted internationally in the current digital financial environment.

The Hong Kong BIS Innovation Centre, together with the Hong Kong Monetary Authority, Central Bank of Thailand, People's Bank of China Digital Currency Institute, and Central Bank of the United Arab Emirates, has launched a pilot program to streamline cross-border payment transactions between Hong Kong and mainland China. This project, known as mBridge, has seen 164 transactions totalling over USD 22 million successfully executed, with

settlements being processed directly through the platform. The mBridge platform is viewed as a highly effective multi-CBDC-based cross-payment platform that is currently in progress and showing promising results (Update on mBridge Project, 2023: BIS Reveals mBridge Features and Gears Up for Launch of CBDC Platform in 2023).

An efficient cross-border payment solution based on multiple CBDCs is being recognized for its potential in facilitating international transactions. Tests have been carried out to evaluate its effectiveness across different regions and currencies, showcasing the advantages of using distributed ledger technology for cross-border payments between commercial banks.

To effectively enter the global digital market, it is essential to initiate pilot projects for implementing CBDCs and smart contracts. This will ensure quick, affordable, and secure cross-border payments and settlements, particularly in key sectors like agriculture in Ukraine. The current focus on digital advancement highlights the importance of financial inclusion on a global scale, as many users in developing countries struggle to access the international correspondent banking network efficiently.

By enabling peer-to-peer exchanges and instant transactions of various CBDCs within the same network, platforms can address the challenges of cross-border payments, promote greater financial inclusion in global transactions, and enhance contract execution efficiency.

A similar initiative is currently in progress in Brazil, where a pilot financial platform utilizing CBDCs has been launched for farmers. Visa, Microsoft, Agrotoken, and Sinqia have collaborated to develop a financial platform specifically targeting small and medium-sized enterprises, including farmers. The platform aims to enhance access to global capital markets, facilitate currency exchanges, streamline operational processes, and create new growth opportunities (Finextra, 2023).

Additionally, the goal is to align the interests of financial services consumers, financial institutions, and the government by establishing digital financial regulations that are user-friendly for digital operators, secure for customers, and support long-term financial stability.

Conclusion

The distinctive features of the Ukrainian financial and institutional environment are essential factors in determining the digital transformation of the financial sector in Ukraine and the level of digital progress required for post-war economic recovery. With a history of traditional banks holding power over financial service consumers, it is essential for the government to implement strong regulations in the digital financial sector. This includes policies on interest rates, compliance for banks, and digital lending practices to safeguard consumers and maintain stability within the financial system.

The post-war economic recovery efforts call for the establishment of new digital financial institutions, supported by the government, to create transparent and efficient platforms for investment. These platforms will serve as mechanisms for transforming surplus funds from budget entities into financial recovery funds.

In the current climate, it is crucial to prioritize the financial independence of our country and make strategic reform decisions based on our national development priorities. It is important to draw on the experiences of European countries, as discussed in the article, when considering potential implementation of a central bank digital currency. This process will require long-term, methodical digital reforms in our monetary system to support economic activity and market participants.

Additionally, ensuring systemic financial stability in the rapidly evolving financial landscape will involve integrating secure and efficient digital and traditional financial services for consumers.

With the ongoing advancement of technology in the financial industry, there is a crucial need for continuous communication and collaboration among financial institutions, consumers of financial services, and government regulatory bodies. As digital financedifffers from traditional banking practices, it requires specific regulations to govern its operations and ensure consumer protection.

In order to effectively oversee the relationship between financial service providers and consumers, particularly in

terms of privacy, verification, and liability, the development of a robust system for protecting personal data is imperative.

After thorough research and analysis, it can be concluded that all objectives of the study were successfully met and all tasks were successfully accomplished.

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