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# CHARACTERISTICS OF EVALUATING FINANCIAL LITERACY AND FINANCIAL BEHAVIOUR OF UKRAINIANS DURING THE WAR

## ОСОБЛИВОСТІ ОЦІНКИ ФІНАНСОВОЇ ГРАМОТНОСТІ ТА ФІНАНСОВОЇ ПОВЕДІНКИ УКРАЇНЦІВ ПІД ЧАС ВІЙНИ



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Філиппова С.В., Ковальова О.М., Малін О.Л. Особливості оцінки фінансової грамотності та фінансової поведінки українців під час війни. Оглядова стаття.

У даній статті наголошено на необхідності підвищення рівня фінансової грамотності населення, що виступає кваліфікуючим драйвером гармонійного розвитку фінансової системи держави та набуває особливої актуальності у повоснному відновленні економіки. Визначено вплив війни на фінансову поведінку та використання інновацій FinTech українцями. Метою статті виступило уточнення особливостей оцінки фінансової грамотності та фінансової поведінки громадян України ціл чає війни, що враховує специфіку впливу фінансової поведінки громадян України ціл чає війни, що враховує специфіку України. Сформовано концептуальні засади оцінки фінансової грамотності та фінансової поведінки населення, що представлені як комплекс взаємопов'язаних слементів. У роботі викладено результати проведеного опитування серед громадян України, зокрема, зі статусом ВПО у рамках програми подвійних грантів UK-Ukraine twinning grants scheme (Проект UUT23 «Фінтех як призма для оцінки шоку або паливо для відновлення? Висновки впливу війни»). Результати опитування дозволили сформувати комплекс рекомендацій як на макрорівні, так і рівні окремого оферента задля виконання фінансовим ринком та інструментарієм фінтеху функції відновлення економіки після отриманої соціальної травми споживачами фінансових послуг.

Ключові слова: фінансова поведінка, фінансова грамотність, фінансова інклюзія, фінансові технології, фінансовий ринок, фінансове планування, фінансовий посередник, заощадження, ВПО, воєнний стан, довіра

Filyppova S.V., Kovalova O.M., Malin O.L. Characteristics of Evaluating Financial Literacy and Financial Behaviour of Ukrainians During the War. Review article.

This article emphasises the need to improve the level of financial literacy of the population, which is a qualifying driver of the harmonious development of the state's financial system and has particular relevance in the post-war economic recovery. The impact of the war on financial behaviour and the use of FinTech innovations by Ukrainians is determined. The purpose of the article is to clarify the peculiarities of assessing financial literacy and financial behaviour of Ukrainians during the war, taking into account the specifics of the impact of financial technologies (Fintech) on the economic development and welfare of Ukraine. The conceptual framework for assessing financial literacy and financial behaviour of the population is formed, which is presented as a set of interrelated elements. The paper presents the results of a survey conducted among Ukrainians, including those with IDP status, within the framework of the UK-Ukraine twinning grants scheme (Project UUT23 "Fintech as a fence for the shock and fuel for the recovery? Lessons from the war"). The results of the survey allowed us to formulate a set of recommendations both at the macro level and at the level of an individual provider to ensure that the financial market and fintech tools perform the function of economic recovery after the social trauma suffered by consumers of financial services.

Keywords: financial behaviour, financial literacy, financial inclusion, financial technologies, financial market, financial planning, financial intermediary, savings, IDPs, martial law, trust

nhancing the level of financial literacy among the population is a key task for the harmonious development of the nation's financial system, gaining particular relevance in the context of martial law and especially post-war economic recovery. The necessity of fulfilling this task is embedded in several strategic macro-level documents, underlining its importance for the sustainable development of the economic system and the growth of financial well-being of citizens.

The updated Financial Sector Development Strategy for Ukraine [1] considers the increase in financial literacy of the population and entrepreneurs as one of the measures within the vision of the financial system as a driver for post-war economic recovery. Achieving this goal is one of the elements in the establishment of a responsible and inclusive financial market in Ukraine.

The new Strategy replaces the previous normative document for the development of the financial sector, the measures of which were intended to be implemented by 2025 [2]. The introduction of martial law necessitated a reassessment of the goals and initiatives for the development of the financial sector amidst the new challenges facing the economic system. However, the previous version of the Strategy also included the enhancement of the population's financial literacy within the distinct direction of "Financial Inclusion".

The National Economic Strategy for the period up to 2030 [3] envisages, within the second strategic objective of "Stimulating the development of

entrepreneurial culture and competencies", a comprehensive set of measures for the development of financial literacy.

Thus, the war on Ukrainian territory has highlighted the need to study financial habits and the level of financial education of citizens, considering the importance of forming the institution of a domestic investor. An adequate level of trust in financial intermediaries allows for the acceleration of investment in the processes of recovery and structural restructuring of Ukraine's economic system. This research is aimed at refining the key characteristics for assessing financial literacy and the peculiarities of the financial behaviour of Ukrainians during the war.

## Analysis of recent research and publications

The significance of enhancing financial literacy and inclusion has been studied in numerous works by domestic scientific experts in the field of economics, including: Bugel Yu.V., Heyenko M.M., Povod T.M., Guzenko T.S., Zhovnir N.M., Zakharova N.Yu., Kalchenko O.M., Prikazyuk N.V., Kozakevich A.S., Kravchenko O.M., Lavrenyuk A.V., Lavrenyuk V.V., Livdar M.V., Osipenko S.O., Pavlenko O.M., Sushko-Krykun O.S., Tarasenko O.O., Sadchykova I.V., Parubets O.M., Rybina L.O., Savchuk N.V., Smahin V.L., Tkachuk N.V., Chubka O.M., Shvager O.A.

It should be noted that in Ukraine, approaches to the growth of financial literacy are primarily based on the analysis of the best examples of international practice. However, despite the significant number of scientific works dedicated to this issue, the theme of financial literacy continues to accumulate new challenges, simultaneously growing in popularity and relevance in the scientific discourse with each passing year. The need for an in-depth understanding of the practice of implementing the best experiences in enhancing financial literacy arises from the correlation between the financial well-being of Ukrainians and their ability to adapt to economic challenges in the turbulent financial environment, conditioned by the factor of martial law.

## Unsolved aspects of the problem

The investigation of current scientific discussions has identified a gap in the form of a lack of comprehensive research works offering a holistic and thorough analysis of the financial literacy of Ukrainians, as well as a comparison of the specifics of citizens' financial behaviour before and during the martial law in Ukraine.

The uncovered scientific niche required the creation of conceptual foundations for assessing the financial literacy and financial behaviour of Ukrainians during the war to understand and adapt the country's financial strategy to current challenges, particularly regarding the assessment of the impact of the military conflict on the activity of Ukrainians' use of FinTech services.

The aim of the article. In the context of martial law, enhancing the population's level of financial literacy will facilitate Ukrainians' adaptation to economic challenges and lay the foundation for

ensuring their financial well-being, which determines the appropriateness of an in-depth investigation of this issue. The aim of the study is to refine the characteristics of assessing financial literacy and the financial behaviour of Ukrainians during the war, considering the specifics of the impact of financial technologies (Fintech) on the economic development and prosperity of Ukraine.

## The main part

Financial literacy is a multidimensional economic category, as it characterises the totality of a person's competencies in the field of decision-making regarding income management, expenses, savings, and the application of financial planning skills. Therefore, to clarify the content of the economic category, it is necessary to conduct a terminological analysis (Fig. 1) of existing scientific approaches in the works of domestic and international scholars [4-15] with the aim of developing a comprehensive understanding for the systemic assessment of financial literacy and the financial behaviour of Ukrainians.

Based on the defined totality of scientific approaches, the key features of the category "financial literacy" can be identified, which will allow a better understanding of its depth and complexity:

- 1. The foundation of financial stability, which represents a benchmark for the state of material provision of a particular citizen.
- 2. One of the acquired elements of social and life experience that affects the efficiency of actions to protect consumer rights in the field of financial services consumption in the financial market.
- 3. A complex of theoretical knowledge and practical skills that contribute to the optimal management of personal finances with the minimisation of potential risks.
- 4. A profound understanding of financial processes and the ability to make considered decisions in the financial sphere.
- 5. A comprehensive understanding and interpretation of the relationships using monetary resources, as well as a strategic approach to the identification and management of potential financial risks.
- 6. Mastery of basic financial concepts that create the foundation for the selection of investment objects and financial assets.
  - 7. Inclusive financial behaviour.
- 8. A qualifying competence aspect that ensures consumers' ability to efficiently navigate and act in a constantly changing economic environment.
- 9. Understanding the fundamental principles of financial science.
- 10. A worldview position that encourages the optimal choice of strategies and tactics in financial operations and processes.

Consequently, there is no unequivocal definition of financial literacy in the works of scholars, which reflects the multifaceted nature of the concept under study.

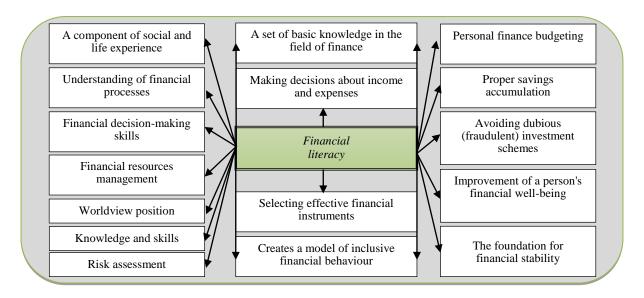


Figure 1. Terminological analysis of the category "financial literacy"

Source: the authors' own elaboration

A review of the publications of scholars who have addressed the issue of defining the essence of the category "financial literacy" allows us to refine its content as follows: financial literacy is a comprehensive system of theoretical knowledge, skills, and abilities, which includes a deep understanding and adaptation of key financial concepts and principles. This encompasses an understanding of financial processes, the correct attitude towards money, as well as the ability to effectively manage personal funds, accumulate savings for the realization of financial goals and predictable stability of one's financial condition in the future, choose the optimal financial product or service, avoid fraudulent schemes, and rationally make investment and financial decisions with the aim of enhancing one's financial well-being.

Financial literacy influences the behaviour of economic relationship participants, orienting them towards efficiency in actions and decisions. Therefore, in the conditions of martial law, the necessity of researching the impact of a turbulent economic and political environment on the financial behaviour of citizens becomes particularly relevant.

The need for assessing financial literacy and the specifics of financial behaviour of Ukrainians during the war was determined by a set of qualifying factors:

- 1) During the war, the economic system is characterized by the presence of imbalances that affect the likelihood of economic recessions. Assessing the financial behaviour of Ukrainians in conditions of economic turbulence involves studying the peculiarities of their adaptation to the challenges of the macroeconomic environment, which will be determined by their level of financial literacy.
- 2) The lack of proper credit of trust from the population to financial intermediaries, which restrains investment activity. This aspect requires the development of a set of recommendations for financial institutions on increasing trust in financial

intermediaries and activating the investment activity of households as a surplus segment of the financial system. Indeed, it is the domestic investor, through the prism of trust in financial intermediaries, who is capable of investing funds in the reconstruction and structural change of the national economy.

- 3) The introduction of martial law has exacerbated aspects of the imperfection in the organization of remote customer service by financial institutions. Customers have faced challenges associated with the security of financial transactions and the complexity of algorithms in the field of FinTech, which limited the possibility of fully benefiting from financial products and services. This research aims to identify and analyse gaps in the field of FinTech, the filling of which will contribute to the quality improvement of financial literacy in Ukraine and the creation of investment preconditions for the post-war recovery of Ukraine.
- 4) The results of the study of the level of financial literacy and specifics of financial behaviour can serve as a basis for the development and implementation of appropriate social support programmes by government agencies, development and promotion of training courses, including free of charge, for citizens.

Thus, the study of the level of financial literacy and financial inclusion of the population in the context of war will not only help to better understand the state of affairs at the micro level of the financial system, but will also demonstrate ways to improve the efficiency of personal finance management of Ukrainians.

As a part of the grant research entitled "Fintech as a fence for the shock and fuel for the recovery? Lessons from the war", the main aspects of the concept of assessing financial literacy and financial behaviour of Ukrainians during the war were formed, taking into account the specifics of the impact of financial technology (Fintech) on the economic development and welfare of Ukraine (Table 1).

Table 1. Conceptual framework for assessing financial literacy and financial behaviour of Ukrainians during the war

Conceptual framework for assessing financial literacy and financial behaviour of Ukrainians during the war		
Objective	To form a comprehensive high-quality information support for the implementation of sound management decisions both at the macro level and at the level of an individual provider in order for the financial market and fintech tools to perform the function of economic recovery after the social trauma suffered by consumers of financial services. After all, the timely and reasonable implementation of the policy of implementing fintech innovations is a critical factor that will contribute to the effective development of the economic system.	
Object	Financial literacy and financial behaviour of Ukrainians.	
Subject	Methodological principles for assessing financial literacy and financial behaviour of Ukrainians during the war, taking into account the specifics of the impact of financial technology (Fintech) on the economic development and welfare of Ukraine.	
Functions	1) Information function; 2) Analytical function; 3) Monitoring function;	
Objectives	1) To create an information basis for improving financial products and ensuring consumer confidence in financial services providers; 2) Analysing the peculiarities of using FinTech by consumers of financial services, identifying the shortcomings of using FinTech services for households, and studying the financial behaviour of Ukrainians; 3) Monitoring and timely identification of a set of possible risks of using FinTech by financial services consumers.	
Information support	1) Questionnaire-based surveys to collect analytical data on the assessment of financial literacy and financial behaviour of Ukrainians; 2) Analysis of the results of the survey on the use of financial technologies; 3) Positive conclusions and permissions for data collection from the Ethics Committee of the University of Portsmouth and the Ethics and Conflict Management Commission of the National University of Odesa Polytechnic; 4) A set of information resources necessary for the implementation of the functions of assessing financial literacy and financial behaviour of Ukrainians during the war.	

Source: the authors' own elaboration

1.1. Processing of scientific sources and analytical reports on the research of financial literacy of households in Ukraine to form theoretical foundations, clarify the factors influencing the financial behaviour of the population, identify knowledge gaps in the field of FinTech, and measure the level of trust in financial institutions.

1.2. Specification of the characteristics of the impact of financial technologies on economic well-being, caused by economic or geopolitical events, with a particular emphasis on the analysis of household behaviour trends, the specificity of financial institutions' operations, and transactions in the financial markets.

1.3. Development of a survey for the implementation of the field research method aimed at identifying the level of households' trust in the use of technologies in the evolutionary investment, credit, and payment process.

Desk-based and field research

- 2.1. Conducting data collection through surveys that meet the following requirements:
- a) An open online survey of up to 200 participants who use financial technologies in their daily activities and utilise financial services;
- b) Focusing on 2 focus groups with the selection of respondents who have the status of internally displaced persons and those from regions not subjected to occupation. The survey was conducted online through direct contact with the consent of the respondent, with their response recorded on paper or immediately in Excel tables within a Google form to ensure information preservation.

Desk research

- 3.1. Comparative analysis of the scientific results obtained from the field research and the open information from analytical reports available in the public domain regarding the specifics of financial services usage in the form of FinTech or traditional banking technologies across certain focus groups.
- 3.2. Identification of the significance of various attributes of a financial service, its vulnerable areas, and the development of suggestions for improving the attributes of the financial service.
- 3.3. Analysis of structural shifts and structural-functional interrelations in the economy. Substantiation of directions for monitoring the impact of FinTech on financial markets at the macro level. Evaluation of financial market development trends considering the digitisation of its individual segments. Development of recommendations on the role of the state in the implementation of FinTech in financial markets, focusing on the improvement of the digital space for the development of FinTech, establishing systems for conveying information to interested parties, and creating comfortable conditions for information exchange for the public in the field of FinTech, thus facilitating the implementation of FinTech tools.

Figure 2. The sequence of using desk and field research methods to study the specifics of assessing financial literacy and financial behaviour of Ukrainians during the war

Source: the authors' own elaboration

All components of the assessment framework are interconnected through information support, which focuses on collecting high-quality analytical data on the current state of financial literacy and awareness of citizens. Compared to the available reports on the results of national surveys on financial literacy and financial inclusion in Ukraine conducted by the USAID Financial Sector Transformation Project, the assessment provides an objective view of the level of financial awareness of citizens in the current socioeconomic situation. This is achieved through the use of an integrated approach that includes a set of methods and tools for searching, accessing, storing, accumulating, transmitting and processing analytical data, which contributes to a deep and objective study of financial culture and behavioural characteristics of

The study of the peculiarities of FinTech use by households in Ukraine was based on the integration of desk and field research methods.

The entire process of scientific research on the peculiarities of assessing financial literacy and financial behaviour of Ukrainians during the war, which was implemented by scientists during the implementation of the grant project [16], can be conditionally structured into three stages (Fig. 2).

It should be emphasized the importance of researchers adhering to the standards of ethics in scientific research and field research ethics. Indeed, it is the ethics of research that guarantees the results obtained are objective and free from bias, enhancing their scientific value, helping to ensure the confidentiality of surveys, and contributing to the maintenance of the scientific community's reputation.

In particular, the implementation of the financial literacy research took into account the principles of The Concordat to Support Research Integrity regarding the adherence to principles of integrity in the scientific activities of universities in the United Kingdom:

- maintaining the highest standards of rigour and integrity in all aspects of research;
- ensuring that research is conducted according to appropriate ethical, legal and professional frameworks, obligations and standards;
- supporting a research environment that is underpinned by a culture of integrity and based on good governance, best practice and support for the development of researchers;
- using transparent, robust and fair processes to deal with allegations of research misconduct should they arise;
- working together to strengthen the integrity of research and to reviewing progress regularly and openly [17].

Drawing on the principles of ethical scientific research, the field methodology was used to analyse specific aspects of consumer behaviour in financial services, the peculiarities of their interaction with financial intermediaries in the financial services market, as well as to refine the level of their awareness in the area of financial literacy and financial inclusion.

The data from the participants were collected using a questionnaire method, with guarantees of respondent anonymity maintained.

The questions in the questionnaire were systematised into five directions, the analysis of which allows for a deep and comprehensive review of the cause-and-effect relationships of specific aspects of the financial behaviour of consumers of financial services, which have changed as a result of the influence of martial law:

- a) demographic issues, determining the gender-age composition of respondents, their level of education, regional affiliation, the relevance of specific life needs or their absence among survey participants;
- b) questions reflecting the current financial situation, the presence of a financial strategy, the current level of savings of participants, and their self-assessment in the context of financial education and personal financial management.
- c) Questions characterising the level of household income and expenses, as well as their composition through the lens of a comparative analysis of the prewar level of these indicators with the current state, which is significantly affected by the consequences of military actions;
- d) Issues related to financial planning, resource accumulation, setting goals, and measuring respondents' trust in financial intermediaries through a comparison of the pre-war level of these parameters and the current situation, which has been altered during the war;
- e) A characterisation of the use of financial technologies by households, clarifying their motives, the regularity of using FinTech in everyday life, and the key financial instruments and services in demand.

The study of demographic data allows for an understanding of how various factors influence financial behaviour and creates a basis for the development of effective methods to enhance the level of financial literacy in accordance with the characteristics and needs of specific population groups. The demographic factors of the study serve as a foundation for understanding the sociocultural and regional peculiarities that influence financial decisions, as well as identifying potential risk zones.

Figure 3 illustrates the demographic distribution of survey participants by gender and age groups, indicating a research focus on the economically active portion of Ukraine's population, which are active users of financial services.

During the study on the usage of financial technologies by Ukrainians before and during the war in Ukraine, a survey of 225 respondents was conducted, predominantly living in the Odessa region (49 respondents or 22.3% of the total surveyed), Kherson region (33 respondents or 15.0% of the total surveyed), and Mykolaiv region (40 respondents or 18.2% of the total surveyed). It is noteworthy that five respondents out of the total number did not consent to the processing of their personal data and survey responses, which led to their automatic exclusion from the data analysis.

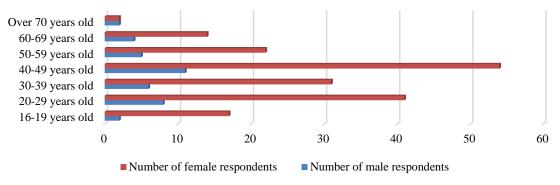


Figure 3. Gender and age structure of survey participants in grant research Source: the authors' own elaboration

It should be mentioned that among the internally displaced persons (IDPs) respondents, who belong to the category of persons from other regions (45 respondents or 20.4% of the total surveyed), a significant portion arrived from the occupied territories of Luhansk, Donetsk, and Zaporizhia regions.

The analysis of the structure of respondents by the criterion of having IDP status indicates that 44.40% of the surveyed were temporarily displaced from the occupied territories; 8.60% are temporarily residing outside of Ukraine with a recorded status of refuge or temporary protection; 53% of the respondents live permanently in the regions considered and do not have IDP status. Thus, it can be stated that the key idea of comparing two equal-sized groups of respondents by IDP status criterion was achieved during the field research for the grant project.

The study involved analysing forms of state/charitable aid received by respondents to cover additional needs that arose in their families due to the war.

The most sought-after form of support by state and charitable organisations proved to be assistance in the form of food parcels/hygiene kits/lunch vouchers/drinking water/household kits, which were received by 44.5% of respondents, highlighting the issue of insufficient household resources to cover basic living needs. This form of aid allowed for the maintenance of a minimum standard of living for the population under difficult conditions.

Financial assistance was utilised by 36.8% of the respondents, corresponding to 81 completed surveys,

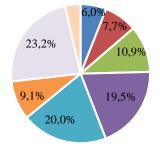
of which 63 were IDPs or temporarily residing outside Ukraine. This support created a foundation for maintaining the economic stability of households and the ability to independently cover basic needs.

40.9% of the respondents did not use state or charitable organisation aid, which allows them to be considered as potentially the most active consumers of Fintech innovations.

The analysis conducted on demographic issues allows for the following conclusions. Despite the fact that some respondents are in regions that have not directly suffered from military actions, the population still requires and uses state and charitable support for a variety of reasons. For example, internal displacement of the population with IDP status, economic and social changes caused by the war conflict, may affect the economy and well-being of regions that have not directly suffered. Therefore, providing charitable financial assistance can be a justified measure to support stability and improve living conditions in such regions, despite the absence of direct military actions on their territory.

Within the framework of the second block of the survey, an in-depth analysis of the financial situation was carried out, the key conclusions of which require attention to understand the impact of the state of war on the transformation of the respondents' financial strategies.

The analysis of the change in the volume of Ukrainians' savings over the last year of the war compared to the pre-war period is depicted in Figure 4.



- Lost all savings
- Savings have decreased by 80 to 99 %
- Savings have decreased by 60 to 79 %
- Lost about half of savings
- Savings have decreased by 25 % to 40 %
- Savings have decreased by less than 25 %
- Savings have not changed
- Savings have increased

Figure 4. Analysis of the change in the volume of savings of Ukrainians over the last year of the war compared to the pre-war period Source: the authors' own elaboration

According to the analytical data from Figure 4, it can be concluded that a substantial portion of respondents (39.5%) suffered losses ranging from 25% to more than half of their savings, highlighting the significance of the negative financial impact of military actions on the savings of Ukrainians.

Critical financial losses were felt by 13.7% of respondents, primarily those with internally displaced person (IDP) status. The analysed data highlights the

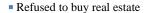
26,4%

7,3%

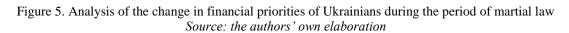
19,1%

25,0%

need for the development and implementation of comprehensive strategies aimed at financial support and economic recovery, with a particular focus on subjects who have suffered maximum losses. During the period of martial law, there has been a shift in the financial strategies of Ukrainians, prompted by a decrease in purchasing power and a significant reduction in citizens' savings volumes (Fig. 5).



- Refused to buy a car
- Refused to save for education
- Gave up saving for investments
- Financial goal has not changed
- Do not have a financial goal



Approximately 25% of respondents have not reviewed their financial strategy and adhere to the developed plan for achieving their financial goal, which was set before the start of Russia's full-scale invasion. This statistic is due to the stability of the savings formed by this group of respondents and a sufficiently high level of competencies they have developed in the area of financial literacy.

The analysis of responses showed that 13.2% of respondents have postponed purchasing property, and 9.1% have delayed buying a car, the main reasons for which were a significant decrease in the volume of their savings and forced migration due to the military conflict.

26.4% of survey participants have suspended the accumulation of funds primarily for passive investment with subsequent income due to the instability of the financial situation in Ukraine and the priority of satisfying the current needs of respondents.

19.1% of respondents have not identified a specific financial goal for themselves, which indicates the secondary nature of the issue of forming a financial strategy by this category of respondents. However, more than half of this target group shows

interest in improving their level of financial education and perfecting skills in the field of personal finance. This trend may indicate the need for the creation of specialized educational programs, including free ones. It should be noted that the majority of them belong to the age category of 20-59 years, which emphasizes the need to develop a state-level strategy to engage this demographic group in active participation in economic processes in the financial services market.

The results of the grant survey were compared with the conclusions of the USAID "Financial Sector Reform Activity" (2021) [19], which shows a nearly twofold reduction in the share of individuals with a defined financial goal due to the riskiness of the political-economic environment.

To identify the depth of the negative impact of military actions in Ukraine on the financial status of citizens, it is advisable to analyse the dynamics of changes in the basic benchmarks of respondents' incomes and expenses within the third group of survey questions.

The analysis of the change in respondents' sources of income before and during the military actions is presented in Figure 6.

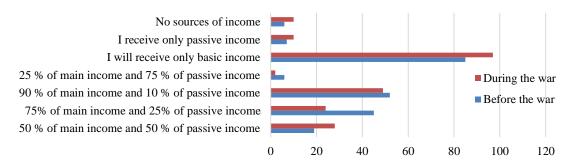


Figure 6. Analysis of the change in respondents' income sources before and during military actions, number of respondents

During the martial law, there was an increase in the number of respondents who split their income equally between main and passive income. This indicates an intensive search for alternative sources of income and a desire for financial stability by this group of respondents. It also indicates an attempt to optimise sources of income in order to reduce economic risks in an unstable period. It is noted that many of these respondents received only 25% of their income from passive investments before the conflict.

The study of the results of the survey respondents' assessment of the possibilities of diversifying income sources in the short term before/during the war in Ukraine showed that the total share of respondents actively considering the possibilities of expanding sources of financial resources, in particular, by finding additional work, is 62.27%, which underscores the prevalence of an approach based on

an adaptive strategy for maintaining financial stability in a turbulent economy.

During the war, respondents began to spend more to pay for utilities, rent, food and medicine, and transport costs (Figure 7). This trend indicates a deterioration in the financial situation of households and an increased risk of lack of resources for potential additional expenses, and clearly demonstrates the deepening economic pressure on the economic system caused by the military conflict.

The increase in household expenditures has led to an increase in the number of people without a financial cushion during the hostilities, which indicates a decrease in overall financial stability in society. The number of people with no savings increased mainly among respondents with IDP status or temporarily residing outside Ukraine, which is offset by financial support from the state and charitable organisations to cover consumer spending.

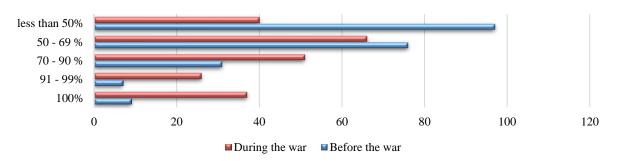


Figure 7. Estimation of the share of expenditures that covers the consumer needs of Ukrainians before/during the war in Ukraine

Source: the authors' own elaboration

The increase in household expenditures has led to an increase in the number of people without a financial cushion during the hostilities, which indicates a decrease in overall financial stability in society.

The number of people without savings has mainly increased among respondents with IDP status or temporarily staying outside Ukraine, which is offset by financial support from the state and charitable organisations to cover consumer expenses. The fourth section of the questionnaire examined the specifics of

financial planning, financial savings and goal setting by respondents.

The survey results show a general decline in consumer confidence and an increase in financial caution during the war. At the same time, the population demonstrates continued stability in some aspects of financial planning and a positive trend in the use of FinTech among households. The study of changes in the financial planning horizon is illustrated in Fig. 8.

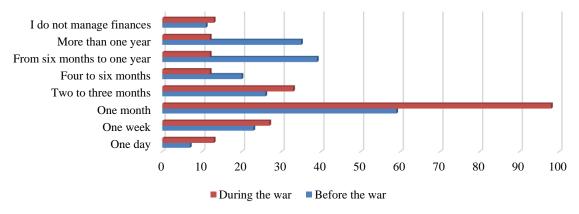


Figure 8. Comparative analysis of the distribution of respondents by the time horizon of financial planning before/within the war *Source: the authors' own elaboration* 

Before the war, there was a uniformity in financial planning with a predominant focus on medium- and long-term planning. During the war, there was a shift in respondents' attention to short-term planning, with a focus on time horizons of one month, one week, one day. The change in this trend demonstrates uncertainty about the future and a decrease in confidence in the economic situation and financial intermediaries in the financial services market in general.

The priority forms of savings preferred by survey respondents include: a) cash in national currency; b) cash in foreign currency; c) mixed cash in national and foreign currencies; d) funds on current account; e) funds on deposit. These forms of savings were also the most popular according to the results of the 2021 Financial Literacy, Financial Inclusion, and Financial Well-Being Survey in Ukraine.

The survey results indicate a prevailing tradition of preferring cash, but there is also a high level of activity in the use of bank deposit services. Thus, respondents need more liquidity during the martial law in Ukraine. A comparative analysis of the distribution of respondents by the criterion of trust in bank and non-bank financial intermediaries before and during the war in Ukraine is shown in Fig. 9.

There is a negative trend in society towards a shift in the level of trust in financial services providers from high and medium to low and very low, due to both economic instability and increased internal anxiety. The government may be recommended to introduce additional support measures, including lending incentives, broad protection and guarantees of household deposits, and the implementation of specialised programmes at the state level to support vulnerable segments of the population and IDPs. These recommendations will help create conditions for ensuring financial stability and protecting the interests of citizens in emergency circumstances, given the current state of confidence in the financial sector.

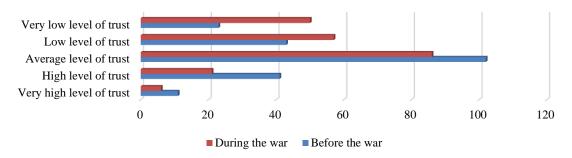


Figure 9. Comparative analysis of the distribution of respondents by the criterion of trust in bank and non-bank financial intermediaries before and during the war in Ukraine

Source: the authors' own elaboration

The fifth block of the questionnaire examines the specifics of the use of financial products and services by citizens. An analysis of the use of the most popular financial services before and during the war in Ukraine has led to a number of conclusions. First, a significant reduction in the number of deposit service users was driven by the growing need for more liquid forms of money storage to ensure quick access to funds when needed. Second, the increased use of mobile applications for utility payments is one of the

most popular financial services, along with card-tocard transfers, due to the wide range of advantages they offer respondents, including accessibility, convenience, speed, and automation. Thirdly, the war has led to an increase in the use of cards for social payments, especially among IDPs, indicating an increased demand for targeted social support in this demographic group.

Monitoring the frequency of FinTech services use by households is shown in Fig. 10.

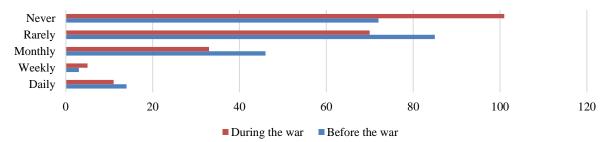


Figure 10. Comparative analysis of the distribution of respondents by frequency of using FinTech services before and during the war in Ukraine

Source: the authors' own elaboration

A significant increase in the number of respondents who do not use FinTech at all may signal the need to focus on financial education, increasing transparency, or supporting access to the financial services market. It is advisable to focus on improving the technological infrastructure and developing

products that meet the specific needs of consumers. An assessment of the change in the frequency of respondents' use of financial technology services since the beginning of the war in Ukraine is shown in Fig. 11.

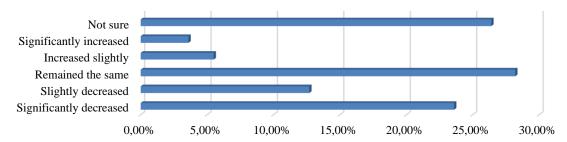


Figure 11. Comparative analysis of changes in the frequency of respondents' use of financial technology services since the beginning of the war in Ukraine

Source: the authors' own elaboration

The above statistics indicate that the war in Ukraine has led to changes in the financial behaviour of consumers, with a predominant decrease in the frequency of use of financial technology services. The identified pattern requires a coordinated set of actions by government institutions and financial

intermediaries to increase the intensity of cash flows within the country's financial system, as households are key potential domestic investors.

The results of the rating of key criteria for choosing a financial intermediary by respondents are presented in Table 2.

Table 2. Rating of respondents' criteria for choosing a financial intermediary

Criteria for choosing a financial intermediary	Number of respondents
Positive experience of family and friends	110
Analysis of the list of available financial products on the website, comparing it with other financial intermediaries	82
A financial institution should be included in the rating of TOP participants	77
A vital criterion is a minimum level of commission fees	76
Analysis of the financial statements of a financial institution	52
Location of the financial institution	49
Research of advertising offers on the market	38
Using the services of financial advisors to choose a financial institution	23

Source: the authors' own elaboration

The findings indicate a predominantly irrational financial behaviour, with 50 per cent of respondents choosing the positive experience of their family and friends as a key argument for choosing a financial institution, which is a limiting factor for making informed financial decisions. The potential of independent sources of information that people can trust remains untapped, which underscores the importance of developing reliable tools for comparing financial products. It should be noted that the majority of survey participants do not use the services of financial advisers when choosing an offerer, which determines the significant potential for the development of this advisory segment in the financial services market.

To get a complete picture and a deep understanding of the study, it is recommended to read the following analytical reports that contain detailed data, analysis of the results, discussion of possible reasons for the identified trends, as well as recommendations for further steps to improve financial technologies and increase the level of financial literacy and financial inclusion of Ukrainians [18, 20].

## **Conclusions**

This paper explores financial literacy as a multidimensional economic category, as it characterises a set of human competencies in terms of decision-making in managing income, expenses, savings and applying financial planning skills. Financial literacy is important both for individual well-being and for the development of the country's economy as a whole, as it is key to protecting the rights of financial services consumers, promoting inclusive financial behaviour and stimulating economic development through a competent approach to resource management.

The research article reveals the peculiarities of assessing financial literacy and financial behaviour of Ukrainians during the war, taking into account the specifics of the impact of financial technology

(Fintech) on the economic development and welfare of Ukraine, as financial inclusion of citizens is the basis for ensuring financial well-being and adaptation of Ukrainians to the challenges of the economic environment.

The conceptual framework for assessing the financial literacy and financial behaviour of Ukrainians during the war has been formed, which is the basis for the implementation of sound management decisions at both the macro and individual provider levels to ensure that the financial market and FinTech tools perform the function of economic recovery after social trauma suffered by consumers of financial services. The sequence of using methodological approaches to assessing financial literacy and financial behaviour of Ukrainians during the war in the framework of the grant project is structured.

The analysed data highlights the need to develop and implement comprehensive strategies aimed at financial support and economic recovery, with a particular focus on the entities that suffered the losses. The government greatest recommended to introduce additional measures, including lending incentives, protection and guarantees of household deposits, and the implementation of specialised programmes at the state level to support vulnerable segments of the population and IDPs. These recommendations will help create conditions for ensuring financial stability and protecting the interests of citizens in emergency circumstances, given the current state of confidence in the financial sector. In the context of the lack of information on the specifics of FinTech, actively promote information campaigns aimed at educating consumers on the use of financial services. Promote the creation of training platforms and resources for FinTech users.

#### **Abstract**

Due to the war in Ukraine, there is an urgent need to study the patterns of financial behaviour and the level of financial awareness of citizens, given the need to develop a domestic investor who, against the background of trust in financial institutions, can become a key participant in investing in the recovery and structural transformation of the Ukrainian economic system.

The imposition of martial law and ongoing hostilities have significantly limited access to financial services for residents of the territories under occupation or affected by hostilities. This situation requires a study of changes in the use of financial instruments by the population compared to the pre-war period, taking into account the IDP status of a part of financial services consumers. The growing dynamics of the number of registered internally displaced persons in the country and significant emigration of citizens raise the issue of assessing the availability of basic financial services and identifying the problems faced by users of these services, as well as monitoring the specifics of citizens' adaptation to the challenges of a turbulent economic environment.

The issue of accessibility of financial services is closely related to the level of financial literacy of the population, which directly affects the demand for and choice of financial products in the market. This article emphasises the need to improve the level of financial literacy of the population, which is a qualifying driver of the harmonious development of the state financial system and is of particular relevance in the post-war economic recovery.

The purpose of the study is to determine the peculiarities of assessing financial literacy and financial behaviour of Ukrainian citizens during the war, taking into account the specifics of the impact of financial technologies (Fintech) on the economic development and welfare of Ukraine.

The definition of the category "financial literacy" as a comprehensive system of theoretical knowledge, skills and abilities, which includes a deep understanding and adaptation of key financial concepts and principles that combine an understanding of financial processes, the right attitude to money, as well as the ability to effectively manage personal funds, accumulate savings for the achievement of financial goals and the projected stability of the financial situation in the future, choose the best financial product or service, avoid fraudulent schemes and

The article develops a conceptual framework for assessing financial literacy and financial behaviour of the population, which is presented as a set of interrelated elements. The purpose of the proposed methodological approach is to form a comprehensive high-quality information support for the implementation of sound management decisions both at the macro level and at the level of an individual provider in order for the financial market and FinTech tools to perform the function of economic recovery after the social trauma suffered by consumers of financial services. After all, the timely and reasonable implementation of the policy of implementing FinTech innovations is a critical factor that will contribute to the effective development of the economic system.

The article presents a methodology for studying the peculiarities of FinTech use by households in Ukraine based on the integration of desk and field research methods. The results allowed us to formulate a set of recommendations both at the macro level and at the level of an individual provider to ensure that the financial market and FinTech tools perform the function of economic recovery after the social trauma suffered by consumers of financial services.

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