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DIGITAL COMPETENCIES AND THEIR INFLUENCE ON THE FINANCIAL BEHAVIOUR OF UKRAINIAN HOUSEHOLDS AMID ECONOMIC TRANSFORMATION

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Abstract
The article examines the relationship between levels of financial and digital literacy and the financial behaviour of Ukrainian households in the context of contemporary economic challenges. The authors highlight the growth in the financial literacy index (from 11.6 points in 2018 to 12.3 points in 2021), which puts Ukraine on a par with Central and Eastern European countries. At the same time, it has been established that access to the Internet has a significant impact on economic well-being: households with Internet access have higher incomes, and the correlation coefficient between these parameters is more than 0.96, which indicates a strong direct relationship.
The article reveals the concept of digital financial literacy as an integrated competence that includes the ability to search for, process and apply information about financial products, use modern financial technologies and adequately assess digital risks. Key competencies (such as cybersecurity, information processing, and innovative use of fintech) confirmed by international and domestic research are highlighted.

Based on statistical data analysis, the authors show that improving households' digital and financial literacy promotes informed decision-making, reduces financial vulnerability and improves quality of life. A systematic set of recommendations is developed: from self-education through digital services to integrated educational programmes covering different age and social categories. The article will be useful for researchers of economic behaviour, policymakers, representatives of financial institutions and educational institutions.
Keywords: digital literacy; financial behaviour; financial inclusion; financial decisions; households.
JEL Classification: D14; G53.

1. INTRODUCTION

The importance of the interconnection between digital and financial literacy and their impact on the financial behaviour of households in Ukrainian society is growing amid the deteriorating economic situation, internal and external challenges, and financial instability. This situation is due, in particular, to the traditionally low level of public awareness of personal finance, household resource management, the specifics of personal taxation, and basic knowledge of lending, investing, pensions, social and health insurance.

On the one hand, there is growing interest in financial markets as a source of income, due to easier access to financial instruments. On the other hand, with the expansion of the Internet user audience, risky practices are spreading, including fraudulent investment projects, pseudo-financial structures, and high-risk schemes. The lack of adequate financial literacy, combined with insufficient skills in managing both own and borrowed funds, negatively affects the financial stability of the population and their quality of life. In the context of rapid digital transformation, which encompasses all aspects of socio-economic activity, especially the financial sector, this issue will become increasingly important. The development of digital products in this context manifests itself through improvements to payment systems that can ensure the speed and scalability of financial transactions. It also involves increasing the level of data protection by introducing blockchain technologies and cryptographic tools, and popularising internet banking and mobile financial services (Brechko, 2019).

Alongside new opportunities, the financial system and its economic and public entities are faced with a number of tasks and challenges (Manolescu, Vîrlan and Talmaciu, 2025). In particular, economic entities must acquire the appropriate level of financial literacy, digital skills and competencies if they are to achieve positive financial results from the implementation of digital technologies in their activities (Walasik and Petrenko, 2023).

2. LITERATURE REVIEW

In the current socio-economic transformation, financial literacy is a subject of active research by domestic and international scholars. Given its pivotal function

in the development of the financial market - encompassing banking and non-banking financial institutions - the scientific community is focusing on analysing how the financial awareness of the population impacts the behaviour of households when consuming financial services. Considerable attention is also paid to developing applied mechanisms for improving financial literacy and to searching for effective forms of interaction between stakeholders in order to strengthen it. The issue of improving financial literacy is actively discussed in scientific circles and at the national level (Ministry of Finance of Ukraine, 2021).

In the last few years, researchers have paid close attention to the issue of financial literacy among the population. It can be considered a combination of knowledge and understanding of financial processes, as well as the ability to manage financial resources effectively and make informed financial decisions (Geyenko, Rybina and Guzenko, 2023).

On the other hand, financial literacy can be defined as the level of awareness among citizens (even those without specialised training) that enables them to understand the nature and importance of financial relations for the socio-economic development of the country. This awareness is demonstrated through citizens' rational participation in economic processes such as saving, paying taxes, lending, settling accounts with other economic entities and making individual investments (Tymkiv and Sydor, 2022).

The studies focus not only on knowledge, but also on practical financial management skills aimed at achieving personal well-being. Financial literacy contributes to entrepreneurship (Dimitrov et al., 2019), personal initiative, socially significant values (Neculăesei, Prodan and Manolescu, 2012), public participation, self-management and career development (Dombrovska, 2022). It also helps to solve personal financial tasks. Financial literacy is a key competence that enables individuals to manage their financial well-being effectively in today's complex financial environment (Lavreniuk and Lavreniuk, 2022). It is very interesting to analyse its impact on population financial behaviour. Financial knowledge and the ability to assess economic processes are fundamental to developing rational financial strategies (Kizima and Shamanska, 2014). The citizens' financial awareness contributes to poverty reduction, more effective decision-making and the development of financial markets, ultimately supporting the country's sustainable economic growth. Financial literacy of the population is a set of attitudes, knowledge and skills of citizens regarding effective management of household finances and the ability to competently apply them in the process of taking financial decisions. It aims to solve the problem of poverty (Vik, Kamerāde and Dayson., 2024), reduce economic risks, resolve the issue of excessive debt burden and increase the profitability of households and entrepreneurs (Cojocaru and Ulian, 2025; Yurii and Kizyma, 2012).

It is an important factor in economic development and a tool for improving population well-being and combating poverty. The citizens can only make

informed decisions that ensure economic progress when they are properly informed about financial matters (Ptashchenko and Kolinchuk, 2021).

Some studies are oriented to the systematisation of the key characteristics of household financial literacy (Dubyna, Tarasenko and Tarasenko, 2023). These characteristics are considered to be knowledge about financial services, the result of an educational process and cognitive activity. They are also considered to be a tool that allows households to make informed decisions (Ionescu, 2021), thereby influencing their income level and quality of life.

The concept of 'digital literacy' emerges from modern philosophical, cultural, sociological, communicative and technological concepts. However, publications still lack a unified approach to the relevance and universality of different definitions of the term. This is despite the need for the most accurate possible description of its content, which would allow the creation of tools for effective communication and information documentation in the digital environment (Kudlai, 2015).

Digital literacy aims to accelerate and expand opportunities for effective financial decision-making, thorough analysis, and expert use of financial instruments and modern financial products and services, improving personal well-being through digital technologies (Wang *et al*., 2023).

Despite noticeable scientific interest in the topic, further research is relevant due to the numerous financial risks that households face when finding sources of income, managing expenses and choosing financial instruments. This requires a deeper study of the mechanisms for improving financial literacy and adapting to a changing financial environment.

3. METHODOLOGICAL APPROACH

The purpose of this study is to analyse how financial and digital literacy impact the financial behaviour of Ukrainian households in the context of current economic instability and digitalisation. The study will also explore ways to enhance these competencies to promote financial stability and the well-being of the population.

To achieve this goal, the following tasks were completed:

– assessing the current situation with regard to the financial literacy index of Ukrainians.

– determine the relationship between internet access and household income;

– reveal the essence of digital financial literacy as an integrated competence;

– develop recommendations for integrating financial and digital skills into household practices.

The following methods were adopted for the research:

– the monographic method was used to systematise scientific approaches to interpreting the concepts of financial literacy and digital competence;

– statistical analysis: to assess the financial literacy index of the population and the dynamics of digital skills;

– comparative analysis was used to identify differences in literacy levels between different age, educational, and territorial groups;

– the graphical method was used to visualise trends and interrelationships between digital skills and financial behaviour;

– content analysis is used when analysing reports and scientific sources on digital and financial policy.

4. RESULTS AND DISCUSSIONS

The extremely challenging conditions currently facing the national economy require the adoption of the most optimal financial behaviour strategy, which is directly dependent on the level of financial literacy among citizens. After all, financial knowledge enables an objective analysis of financial and economic processes taking place in the country and beyond, and ensures an adequate quality of life for citizens.

The digital competencies of the population contribute to the integration of the concept of European citizenship (Andrei *et al*., 2025), which needs to be promoted in view of future integration into the European Union. The orientation toward digitalization has been a horizontal objective of European funding programs in Eastern European countries (Manolescu. Prodan and Aruștei, 2016).

Ukrainians' Financial Literacy Index has risen from 11.6 points in 2018 to 12.3 points in 2021 (USAID Financial Sector Transformation Project, 2021). In terms of this indicator, Ukraine is on par with Bulgaria and Croatia, leaving Georgia (12.1 points), Romania (11.2 points) and even Italy (11.1 points) behind and improving all components of the index: financial knowledge, financial behaviour and attitude towards financial issues.

The highest level of financial literacy was demonstrated by Ukrainians aged 25–34 (12.7 points) and 30–59 (12.6 points). Those aged 18–19 (10.1 points) and over 60 (11.6 points) demonstrated the lowest levels of financial literacy. In terms of gender, Ukrainian men and women are equally knowledgeable about financial issues, with an overall financial literacy index of 12.3 and 12.2 points, respectively. However, there is a direct correlation between financial literacy and level of education: the higher the level of education, the higher the financial literacy score. The overall score for Ukrainians with secondary vocational education is 11.9, compared to 13.3 for those with higher education. The gap in financial literacy between urban and rural residents has increased (12.6 and 11.8 points, respectively).

There is a difference in the level of financial literacy between users and non-users of modern information technologies, which is 2.5 points (12.4 and 9.9 points, respectively) (USAID Financial Sector Transformation Project, 2021). Therefore, it is assumed that an adequate level of financial literacy among Ukrainians will enable them to adjust their financial behaviour in the current incredibly difficult conditions associated with full-scale military aggression.

Ensuring the accessibility of financial services to the population through digital technologies requires not just an increase in financial literacy, but specifically in digital financial literacy. This requires the development of skills in searching for and using information and financial instruments, as well as critical thinking. These skills in navigating the digital landscape of the twenty-first century are pivotal in achieving optimal outcomes from household financial activities.

The objective factors contributing to the current dynamic increase in financial and digital literacy are:

– increasing customer autonomy by providing contactless and customisable services;

– the development of innovative financial instruments and alternative channels for selling financial services;

– remote access, registration and data processing;

– the digitisation of cash asset management functions;

– the introduction of blockchain technologies and the development of fintech.

In a post-Covid society, developing digital skills among the population is becoming an important task for both society as a whole and each individual. Urbanisation, internet access and online resource availability, as well as the development of basic digital and financial literacy, are essential for creating an independent society that can meet its own economic needs (UNESCO. Institute for Lifelong Learning, 2020).

Technological change and global challenges, such as the ongoing pandemic and war, are increasing people's mobility in Ukraine and around the world. This requires citizens to improve their digital competencies in order to access services and/ or employment. Developing digital literacy enables people to become independent, active users of digital services throughout their lives, including financial ones, thereby ensuring their future well-being (Morze *et al*., 2010).

The scientific community has identified twelve areas of digital competence (Dobryanska, 2024). These areas are based on the knowledge and skills people need to acquire in order to become literate.

In order for households to promote their own businesses online, it is important that they have the necessary digital skills (Nanovska, 2023). This enables businesses to access international markets via marketplaces. Critically important digital skills include working with SEO (search engine optimisation); contextual advertising; content marketing; video marketing; social media marketing (SMM); and email marketing. Using CRM, ERP and SCM systems as digital tools helps improve business efficiency by automating its main processes (Tyagunova and Tyagunova, 2023).

An important aspect for studying the impact of digitalization on the financial behaviour of Ukrainian households is determining the level of digital literacy of the population. Thus, in 2023, an integrated study was published, in

which it was analysed the development of digital skills of Ukrainians (Ministry of Digital Transformation of Ukraine, 2023). Researchers surveyed 2,005 people aged 18 to 70 and 402 people aged 10 to 17. In particular, they asked about information, communication skills, skills for solving life problems and creating digital content. The results of this study showed that the older people are, the fewer of them are connected to the Internet. If among young people (18–29 years old) 98% have access to the World Wide Web at home, then among people over 60 years old this share is 86%. Those respondents who do not see the benefits of using the World Wide Web or do not have the appropriate skills to use it do not have access. The Internet is used daily by: 71% of respondents among the oldest category (60–70 years old) and 96% of respondents among the youngest category of adults (18–29 years old).

To assess the digital skills of respondents, four levels of proficiency were defined:

– "No skills" – absence of digital skills across all four domains (information, communication, problem-solving, and digital content creation) and/or no use of Internet services within the past three months;

– "Low skills" – lack of digital skills in one of the four areas of competence;

– "Basic skills" – digital proficiency in all four areas at a level no lower than “average”;

– "Above basic skills" – digital proficiency in all four areas at a level no lower than “above average.”

According to the results of this study, 93% of Ukraine's adult population (aged 18–70) had digital skills in 2023, 38% of whom had the highest level. For comparison, this figure was 32.6% in 2021 and 25.5% in 2019 (figure 1).

These indicators suggest that the population's digital skills are improving: the proportion of adults without digital skills is falling, while the proportion of people with basic or higher skills is rising. Additionally, proficiency in solving everyday problems using technology, such as online banking, is quite high (86%). Almost 16% of adults use artificial intelligence for work or education, compared to 56.3% of adolescents. Almost 81% of Ukrainians believe that growth in digital skills can positively impact Ukraine's economy as a whole. Those with a higher level of digital skills are more likely to agree with this. According to the results, 85% of respondents confirmed that people with higher digital skills have more career growth opportunities. Furthermore, 82% of participants emphasised that these skills are important for obtaining prestigious, promising, high-paying jobs and, consequently, improving their standard of living (Ministry of Digital Transformation of Ukraine, 2023).

The development of digital technologies and citizens' acquisition of a sufficient level of digital literacy are inextricably linked to Internet access. According to the OECD Data Explorer (2025), 91.6% of households in Eurozone countries reported having access to the internet in 2023. The highest

rates were recorded in countries such as: Luxembourg (99.1%), the Netherlands (98.9%), Finland (96.8%), Iceland (96.4%) and Belgium (94.5%). The lowest rates were in Lithuania (88.6%) and Greece (86.9%). Globally, the countries with the highest household Internet access rates are Korea (99.96%) and Switzerland (99.66%), while Colombia has the lowest rate (59.47%).

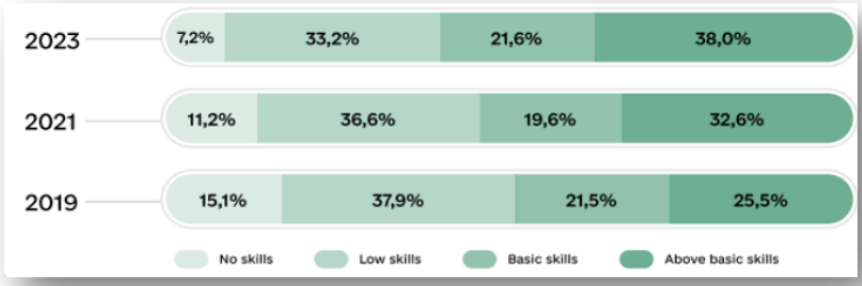


Figure 1. Dynamics of the general level of digital skills among Ukraine's adult population
Source: Ministry of Digital Transformation of Ukraine (2023)

In almost all cases, this access is via a personal computer using dial-up, ADSL or cable broadband. The share of internet users among the population in Ukraine was almost 94% in 2023 (Nanovska, 2023).

The rapid growth of urbanisation today (with forecasts predicting an increase in the urban population to 5.2 billion by 2030) stimulates the creation and development of high-quality, sustainable infrastructure and the provision of basic services, including internet access (United Nations. Population Division, 2018).

A steady growth trend in the number of households connected to the internet in cities was observed during 2017–2023. An analysis of the growth dynamics in the proportion of the urban population connected to the internet shows that the highest proportion of connected individuals in 2017 was observed in Germany (93.57%). By 2023, this figure had decreased by 0.82 percentage points. In contrast, it increased by 6.59% in France, 9.41 percentage points in Poland and 6.18% in Austria, compared to 2022 (Table 1).

Cities are becoming centres of financial and digital activity for most of the population living within their boundaries, and urbanisation is accompanied by population growth and digitalisation. Access to the internet among rural households is also increasing. In Germany, for example, the proportion of the rural population using the internet increased from 91.23% in 2016 to 96.04% in 2020. Similar increases were seen in France (from 84.84% to 90.09%) and Poland (from 79.05% to 88.88%).

Table 1. Households in selected European countries with access to the Internet (as a % of total urban/rural households)

Year	2018		2019		2020		2021		2022		2023	
Name of the country	city	rural area	city	rural area	city	rural area	city	rural area	city	rural area	city	rural area
Germany	95,47	93,11	94,96	95,03	95,58	96,04	92,74	91,23	91,56	91,86	92,75	90,15
Austria	90,16	88,50	91,82	88,07	92,35	89,80	96,14	93,43	95,24	91,95	-	-
France	90,10	87,81	91,91	90,09	…	…	94,91	92,59	93,72	91,40	95,14	91,84
Poland	87,17	81,60	89,51	83,49	91,59	88,88	93,69	91,93	94,21	92,85	94,19	92,89
Ukraine	71,6	40,6	76,3	44,1	85,60	66,01	87,40	72,83	…	…	94	…

Source: Adapted from Nanovska (2023); OECD Data Explorer (2025)

Overall, the number of households connected to the network has grown rapidly in both urban and rural areas, with urban areas experiencing faster growth than rural areas (except for Germany). As for Ukrainian households (Fig. 2), from 2010 to 2023, the share of households with Internet access grew by an average of 5.5% each year.

In order to identify the impact of digital technologies on financial behaviour and well-being levels in the population, it is advisable to study the distribution of people living in households according to how frequently they use internet services, and how this availability depends on average per capita total income (Figure 3).

Notably, the largest proportion of active internet users (those who use the network daily) comes from households with the highest level of provision - 91.9%. This pattern is logical and expected since this category of households has the widest access to durable goods, which contributes to regular use of digital services.

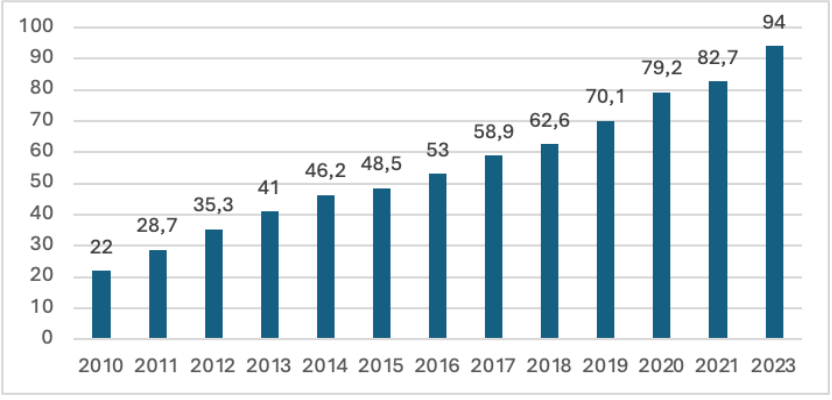


Figure 2. Share of Ukrainian households with access to the Internet for the period 2010-2023, in % of the total number of households

Source: Adapted from (State Statistics Service of Ukraine, 2025)

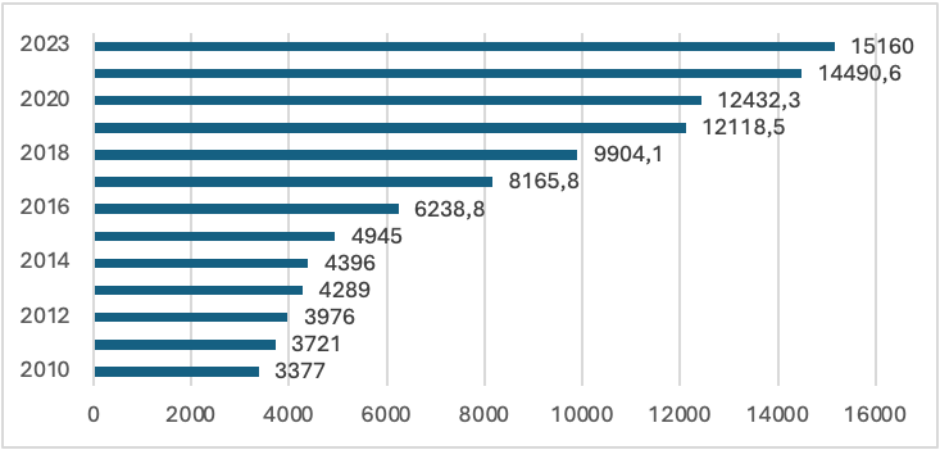


Figure 3. Dynamics of aggregate household income in Ukraine, UAH
Source: Adapted from (State Statistics Service of Ukraine, 2025)

In addition, household ownership of durable goods not only reflects the level of material security and well-being of its members, but also indicates the development of basic digital competencies. Such skills are a prerequisite for active integration into the digital environment, providing a number of competitive advantages in a modern information society.

Even basic use of digital devices within the household, such as carrying out simple banking transactions via suitable mobile applications, indicates the start of the digital transformation of everyday life. This demonstrates households' readiness to further develop their digital and financial competencies, which will contribute to their future socio-economic well-being.

From an analytical point of view, it is of considerable interest to study the characteristics of households without internet access. The main barriers are a lack of confidence, knowledge or skills in using digital technologies. At the same time, however, positive trends have emerged: between 2019 and 2021, the proportion of people lacking the basic knowledge required to use the internet decreased. This is due to the rapid spread of digitalisation in all areas of public life in recent years.

The availability of internet access is one of the key factors demonstrating a stable growth trend during the analysed period. This factor has a significant impact on both the overall level of household income and the transformation of their expenditure structure. In this context, it is important to note that a household's financial well-being and the characteristics of its financial behaviour largely depend on the digital and financial competence of its members, particularly in terms of the effective use of the opportunities provided by the internet. This dependence, in turn, affects the financial culture of the population as a whole and the socio-economic stability of the state. Households should have

the opportunity to obtain the necessary knowledge and skills, either through self-education with access to the relevant educational tools (Manolescu, Florea and Aruștei, 2018), or by acquiring them directly while using financial or digital services. This should be supported by a centralised state-level educational process, starting with pre-school education and continuing throughout life. Cooperation and concrete partnerships between various public and private actors, especially in times of crisis (Talmaciu and Manolescu, 2023), are essential in this process.

5. CONCLUSIONS

Analysing the level of digital skills among Ukraine's adult population, it was found that, in 2023, 93% of adults aged 18–70 had digital skills. Of these, 38% had the highest of the four possible levels. It was also proven that acquiring a sufficient level of digital financial literacy is inextricably linked to providing access to the internet. However, a high rate of internet access in Ukraine does not necessarily indicate a high level of digital and financial literacy, as access to the internet and the ability to use it effectively are uneven due to a lack of technical means and low levels of knowledge and skills.

In light of ongoing work on digitalisation in Ukraine and the fact that digital technologies have already permeated all areas of human activity, including the economic sector, we deem it fitting to provide a more detailed description of the impact of digitalisation on household financial behaviour. This is because digitalisation processes have also affected households, altering the specifics and manifestations of various financial behaviour models.

While the positive impact of digitalisation on household financial behaviour should be acknowledged, special attention must be given to studying the risks to which household members are exposed when using digital technology products for financial activities.

Taking into account the results of the analysis of key aspects of household financial behaviour in the context of digitalisation, and under the influence of internal and external factors, it is important to identify the main rationalisation strategies for the financial behaviour of digitalised households. This is because the judicious use of digital technologies by households when making financial decisions requires a sufficient level of financial and digital literacy, as well as digital competencies and skills. This can effectively ensure the financial stability and well-being of both households and the country as a whole.

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