

Social Transfers and Public Finance Efficiency: Navigating Digital Transformation Challenges

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ABSTRACT

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Introduction: The paper analyses the experience and challenges of digital transformations in terms of the impact of social transfers on the efficiency of public finances. The significance of the study is that social transfers as payments to persons not engaged in economic activity are currently receiving particular attention in the context of the Russian-Ukrainian war. Social transfers constitute a significant part of public finances and, therefore, require public scrutiny.

Objectives: The study aims to analyse the experience and challenges of digital transformation in terms of the impact of social transfers on the efficiency of public finances.

Methods: The study used the following research methods: description, comparison, analysis and synthesis, and literature analysis.

Results: The study revealed that, at the present stage, there are problems with introducing digitalisation in public finance. This is due to both insufficient material support and the lack of an established system of public access to e-government. This suggests that it is essential to accelerate the introduction of information technology in the area of social transfers.

Conclusions: The research identifies trends in social transfers in Ukraine. In particular, an increasing amount of transfers is allocated to help war veterans and their families, as well as persons in difficult life circumstances due to martial law. It is emphasised that social expenditures are realised mainly from external sources and are spent on the needs of citizens of retirement age. It is established that social transfers to combatants are currently insufficient.

Keywords: budget, public finance, social transfers, transformation, financial analysis, fiscal policy.

INTRODUCTION

The full-scale invasion of the territory of our country by the enemy in 2022 resulted in the Ukrainian economy being affected by various harmful factors [1, p. 105]. For example, some businesses ceased to operate, a significant part of the population lost their permanent income or jobs, businesses were forced to relocate to safe regions, and supply chains were disrupted [2].

As a result, more and more attention has been paid to social transfers as an opportunity for the population to have additional or only monetary resources [3, p. 57].

In general terms, "social transfers" are interpreted as "monetary or other payments to the population that are not related to their participation in economic activity" [4, p. 75]. Social transfers can include payments from the state to citizens they receive because they belong to a specific category: pensions, scholarships, or social benefits [5, p. 111]. These transfers can also take a material form, for example, when the state allocates computer equipment to low-income families or food and assistance with construction materials if people have lost their homes [6, p. 165]. Subsidies are also a social transfer [7, p. 5].

However, most attention should be paid to social cash transfers, as they significantly impact public finance [8]. For our country, this issue is acute; in particular, public finance is an area that requires digitalisation, which may further affect the quality and volume of social transfers [9, p. 431]. In addition, public finances currently perform a predominantly social protection function [10, p. 225]. Accordingly, we need to talk about the challenges of digital transformation regarding the impact of social transfers on the efficiency of public finances.

LITERATURE REVIEW

The issue of challenges of digital transformation in terms of the impact of social transfers on the efficiency of public finances has been studied by such scholars as Achilova [11], Androniceanu [12], Damon [13], Long [14], McLean [15], Millard [16]. They emphasise that digital transformations positively impact the efficiency of public finance and social transfers. The authors point out that introducing unified electronic public finance systems that citizens and officials could access would increase social spending. In addition, creating an integrated platform and architecture of the electronic public finance system would improve control over this area.

Thus, the scientist McLean [15, p. 4] draws attention to social transfers as humanitarian aid. They differ from other payments in that they have a clear purpose for which they are paid to the recipient; they have a specific formula for calculating them; they should meet basic human needs but not necessarily meet them in full. At the same time, social transfers in each country depend on various factors; in particular, their amount may vary from the minimum cost of a productive basket to the subsistence level. Also, the amount of social transfers can fluctuate monthly and be fixed for the year. At the same time, the researcher notes that social transfers are primarily paid in cash.

The scientist Damon [13, p. 5] draws attention to the impact of social transfers on the social security sector. In his vision, social transfers can positively impact changing the public finance system only if they are formed considering the economic, technological, political, and social situation. Only a combined approach can make the public finance sector sufficiently resilient to current challenges. For example, the redistribution of finances, including for social security, is now acute, as assistance to the population is essential. However, it is necessary to accumulate funds to address the crisis.

According to the researcher Androniceanu [12, p. 17], the field of public finance and social transfers, including social transfers, are positively transformed under the influence of digitalisation. The scientist explains this by the fact that the introduction of information technology in public administration leads to public access to public information. Accordingly, the media can learn more about the distribution of finances, public procurement, and local government expenditures. Information on social security trends and social payments in the regions is also becoming available. At the same time, the researcher notes that E-government is a system that positively reflects changes in public finances, as citizens have access to information about the cooperation of government, business, and society.

Researcher Achilova [11, p. 207] insists that the gradual process of introducing digital technologies into public administration allows for increased efficiency and transparency of public finance flows. First of all, this is manifested in the optimisation of financial processes, as digital technologies allow for a quick request for funds and their timely allocation and convenient reporting on social transfers. In addition, digitalisation makes it possible to post information on the distribution of funds and their use in the public space, thus making it possible to report to the public. The scientist draws attention to the fact that digital technologies in the field of public finance are currently based on the use of artificial intelligence, blockchain, and big data analytics. Accordingly, this results in an increase in public trust in the government.

The researcher, Millard [16, p. 43], is convinced that it is possible to optimise the social transfer sector only by introducing "5.0" technologies. The scientist emphasises that these technologies are built on profound ideas for managing and controlling funding. Working with such technology, a person uses the potential of information technology to make fundamental changes in society, while a person's cognitive abilities only improve. At the same time, the advantages of such technology are that it is easy to use, its results can be shared with others, and it can be adapted to any field of activity. Therefore, introducing new technologies will make the public finance sector more transparent.

In Long's vision, public finance and digital technologies have long been combined in digital public finance management [14, p. 41]. He argues that the digitalisation of public administration aims to improve civil servants' jobs, as they must provide quality services to citizens. Digital solutions enable optimising the work of professionals

in the public administration sector. In particular, specialists who serve the processes of public finance mainly work online, which indicates the possibility of organising remote access to the public finance sector.

Accordingly, the analysed scientific work is sufficient for the study. This suggests that researchers are interested in this issue.

The study aims to analyse the experience and challenges of digital transformation in terms of the impact of social transfers on the efficiency of public finances. The purpose of the study is related to the fact that the issue of regulating the transparency and openness of social transfers is increasingly attracting the attention of researchers, which is related to funding issues.

METHODS

The following research methods were used in the study: description, comparison, analysis and synthesis, and literature analysis. The description method was used to reflect the essence of the concept of "social transfer." The comparison method was used to compare the structure of social transfers as an element of public finance. The analysis and synthesis method was applied to determine the impact of digital transformation on public finance.

RESULTS

Since the start of the full-scale invasion, many citizens have suffered, and the state has expanded the areas where it can assist citizens. In addition, the forms of assistance have diversified. In particular, in 2022, Ukraine introduced tax privileges to reduce or eliminate taxes for specific categories. However, over time, these norms were cancelled, as it is impossible to ensure the typical economic development of the state without the appropriate amount of taxes.

In 2022, the Government of Ukraine has set a priority target for social transfers to help internally displaced persons. The government spends \$5 billion monthly on payments to internally displaced persons. Most money comes from external sources, while grants, bonds, and government loans provide the rest. Despite the lack of financial resources, the state still tries to help IDPs, and the mechanisms for organising such payments are constantly improving. In particular, to obtain IDP status, a person can apply to any Administrative Service Centre, provide the necessary package of documents, issue a bank card for payments, and then receive monthly social payments.

Other areas of social spending also increased in size. In particular, payments to low-income families and families needing housing and communal services increased. This is because the financial situation of many families, especially those in vulnerable categories, has deteriorated as a result of the hostilities, and the loss of housing or forced relocation to other regions has become a problematic aspect.

Many factors influence the public finance sector, so discussing the concept of "public finance efficiency" is necessary. This definition can be interpreted as "the state and functioning of the public finance sector under the influence of the state and society." Factors that slow down the efficiency of public finance may include the economic crisis, instability of the national currency, incorrect redistribution of budget funds, production crisis, political instability, and debt burden.

If these factors significantly impact public finances, the volume of social transfers will gradually decrease. Social transfers are important because they reflect whether the state is functioning stably and is not facing crises, as social payments are mostly distributed by the state budget after other expenditures.

In Figure 1 we can demonstrate the following schedule of state budget expenditures in Ukraine from 2021 to 2024 (in UAH million).

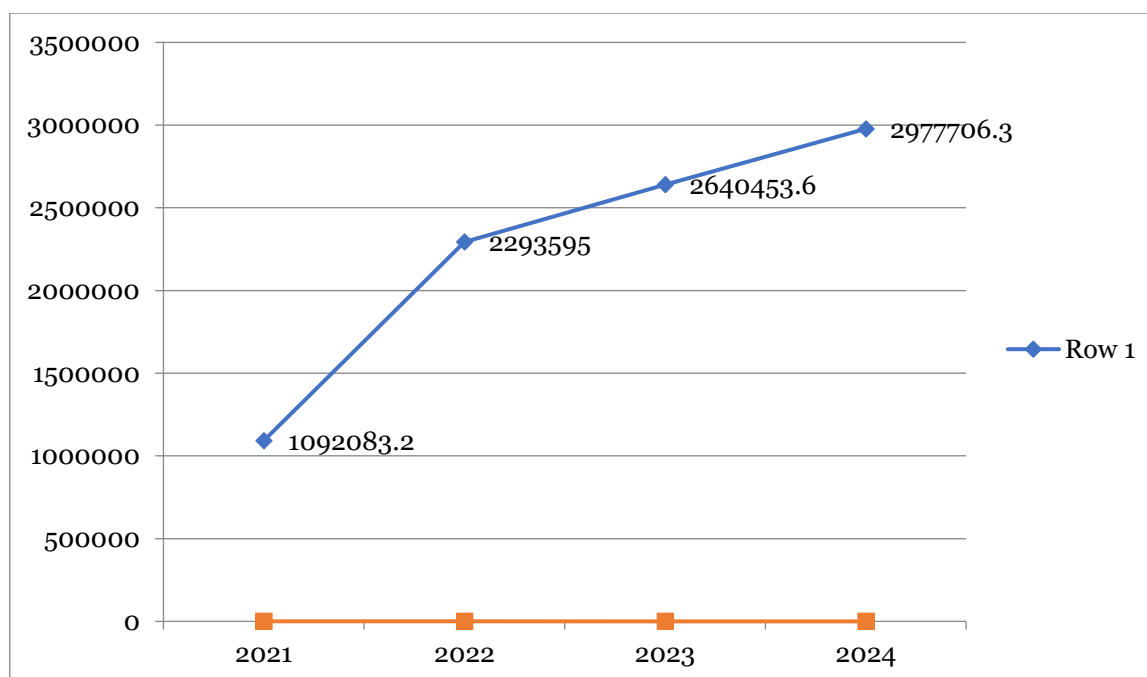


Figure 1. State Budget Expenditures of Ukraine from 2021 to 2024 (in millions of UAH)

Source: State budget web portal for citizens [17]

According to the graph above, the expenditures of the State Budget of Ukraine have increased significantly over the past 4 years. In particular, in 2022, expenditures exceeded last year's Figure 2 by UAH 1.2 trillion, which indicates an increase in the state's financial capacity to increase expenditures and thus social transfers.

It is also necessary to pay attention to social spending from 2021 to 2024 (in billion UAH).

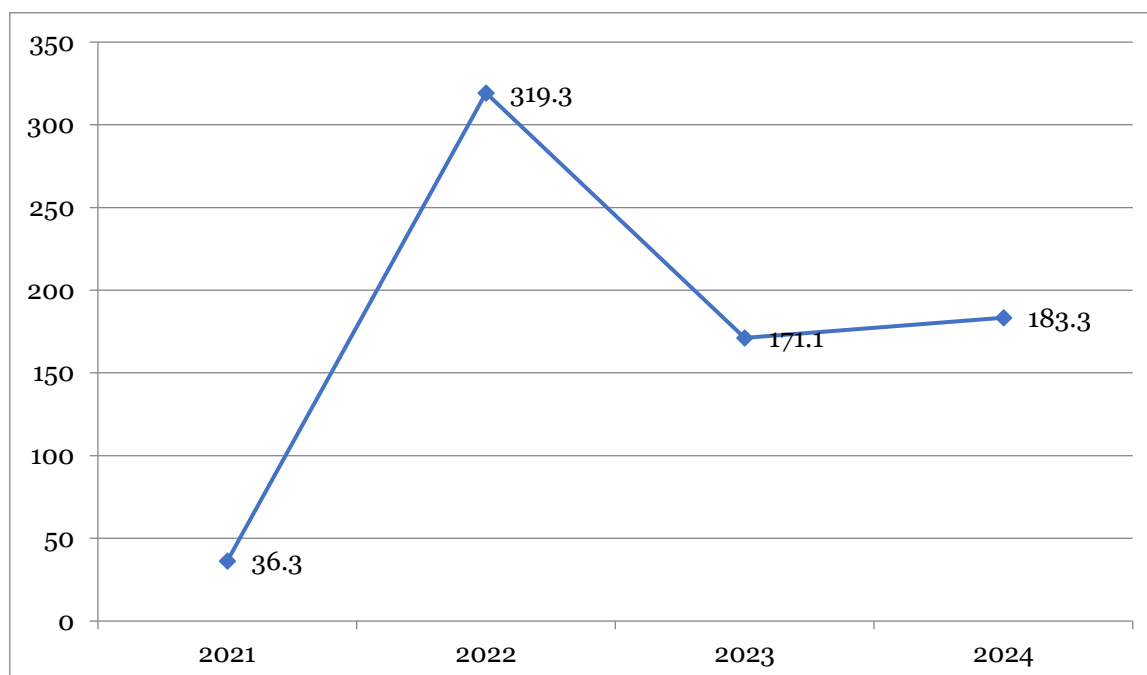


Figure 2. Social spending in 2021–2024 (in billion UAH)

Source: State budget web portal for citizens [17]

Figure 2 shows that in 2022, there is a sharp increase in social spending due to the full-scale invasion. However, in 2023–2024, this amount decreases due to budget reallocations and the recalculation of social benefits. The share of social transfers in the total budget was as follows in different years: 7% in 2021, 19% in 2022, 35% in 2023, and 20% in 2024. This suggests that the increase in the share of social spending is not due to an increase in spending but instead to a decrease in other areas. In 2024, total expenditures were the highest, while the share of social transfers was the same as in 2022.

In particular, the amount of social transfers as of 10 November 2024 is shown below (Figure 3).

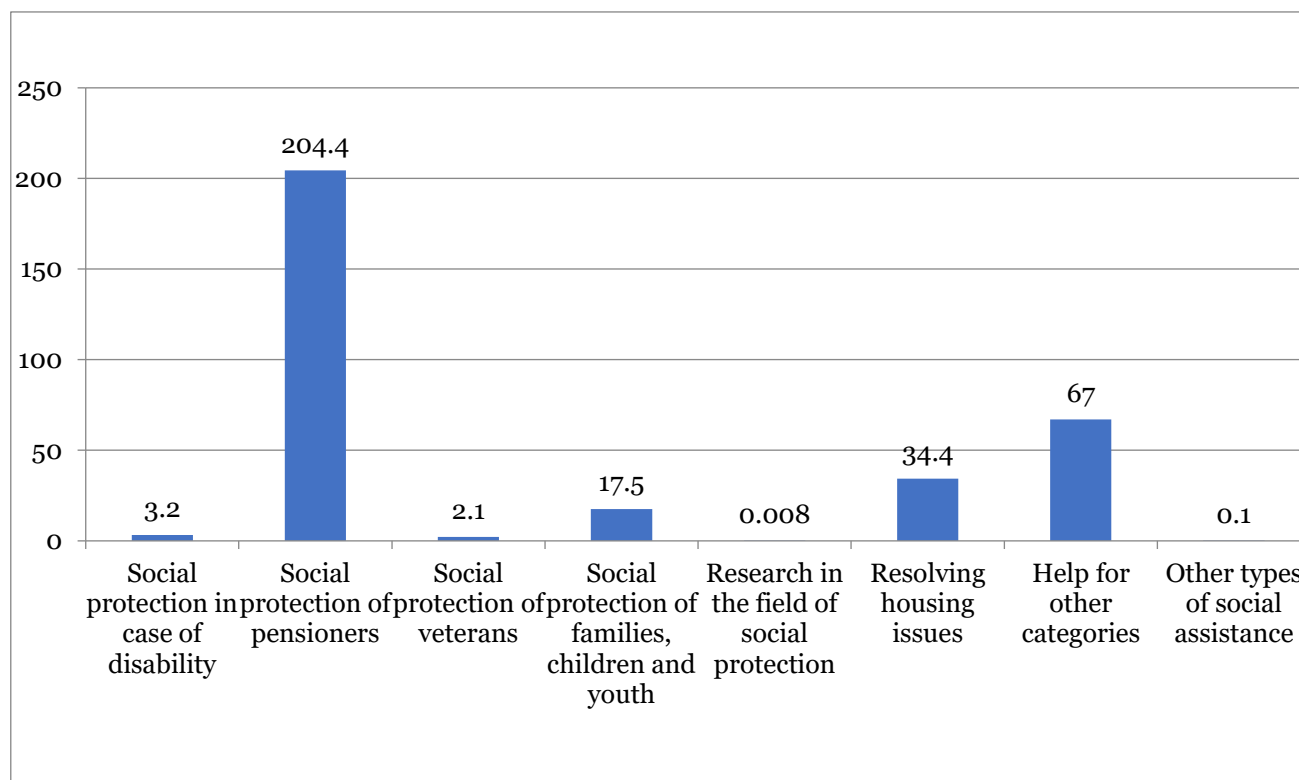


Figure 3. The amount of social transfers as of 10 November 2024 in Ukraine (in billions of dollars)

Source: Social protection and social security [18]

Here we see that the most significant expenditures relate to the social protection of pensioners, as the amount of social transfers for these expenditures is 62% of all social transfers (this includes pensions, additional payments, and holiday payments). Social protection of other categories accounts for 20%, which includes categories of citizens who suffered as a result of Russian aggression, lost their homes or businesses, were injured or wounded, or were forced to change their place of residence.

Social protection of veterans accounts for only 0.6% of all social transfers, which suggests the need to attract additional external sources to help veterans' families and veterans themselves. As of 1 January 2023, the average pension of a combat participant in Ukraine was only UAH 8,500, which is a small amount [19].

Digitalisation affects social transfers primarily by improving the quality of financial management. For example, the stages and phases associated with the movement of funds and their distribution become optimised as efficiency increases. In addition, it becomes possible to track funds, identify excessive cash resources, and redistribute social transfers according to the most urgent needs.

The advantages of digitalisation include ease of implementation, the ability to disseminate public information to citizens, the ability to submit reports and analyse data conveniently, and the ability to use several systems simultaneously.

As for the models of digitalisation of public finance, the Cabinet of Ministers of Ukraine uses a model consisting of the following components: implementation of priority projects, centralisation of information technology administration, introduction of electronic services, information security, strengthening of human resources, and prevention of human error. The model is focused on standardising processes related to digital technologies in public finance. This helps increase the transparency and accountability of e-governance in the social transfers block.

The digitalisation of public finance is part of GovTech, which is characterised by the introduction of information technology to solve governmental issues. This area is primarily intended to establish interaction between public authorities regarding various social benefits and to plan the country's economic development in the future. Introducing this technology helps reduce the risks of excessive expenditures in the future and ensures effective communication between different government agencies.

This technology displays in real time how the reforms are being implemented, including the budget for social transfers, how much money is available for expenditures, the percentage of funding shortfall, and which regions have more funds for social payments. The openness of this process allows citizens to make sure that their money is spent in the right direction and that all expenditures are made on time.

In addition, the technology is based on the principles of data security, confidentiality of information, accessibility, and data openness. Accordingly, digital technologies allow citizens to be involved in decision-making, optimise the functioning of the public finance sector, ensure transparency and accountability of the government, and allow for the reform of the public finance sector.

The GovTech Maturity Index assesses technology implementation according to certain indicators, with a maximum score of 3 points. The maximum score indicates that digital transformation in the field of social transfers is fast, covers various areas of information technology implementation, aims at public access to e-government, and demonstrates an increase in the number of participating organisations.

Countries such as the USA, Australia, Canada, Mexico, Spain, Portugal, and Germany achieved a maximum score of 3 points. These countries have a clear technology development strategy, digital knowledge development strategy, data protection system, and digital government development strategy.

The results for 2022 in the area of social transfers are shown below (Table 1).

Table 1. Social transfers to Ukraine, according to the GovTech Maturity Index in 2022

Indicator	Result (in points)
Availability of an operational, financial management information system (FMIS) to support core public financial management (PFM) functions	2
Availability of a single treasury account (TSA), supported by the information system	2
financial management system (FMIS) for automation	
payments and bank reconciliation	
The existence of social insurance systems, including pension insurance	2
Availability of an online social insurance/pension portal	2
Does the government regularly publish statistics on citizen engagement and performance?	1
Availability of a cloud-based platform accessible to all government agencies	0
Availability of an architectural framework for state-owned enterprises	0

Source: GovTech Maturity Index [20]

Our state has weaknesses, such as the lack of a comprehensive digital data development programme, an imperfect digital government system, a closed e-government system, and the implementation of only specific digital programmes. These lead to scores of only 2 points and up to 0 points in the items "Availability of a cloud platform accessible to all government agencies" and "Availability of an architectural framework for state-owned enterprises."

The following sources of social transfers in Ukraine can be identified (Figure 4).

As we can see, in 2023, the primary source of social transfers was external borrowing, which accounted for 45% of total transfers; domestic borrowing, which accounted for 33%; and grants, which accounted for 21%. Military bonds account for only 1%. This suggests that our state should pay more attention to cooperation with foreign partners who provide the most assistance and target significant resources for cooperation with them.

It is worth noting that social transfers now constitute a significant part of public finances and expenditures on healthcare, education, and environmental protection because an increasing number of people need social protection. The system of social benefits is being revised in the context of military operations, and the structure of expenditures on social protection and social security is changing.

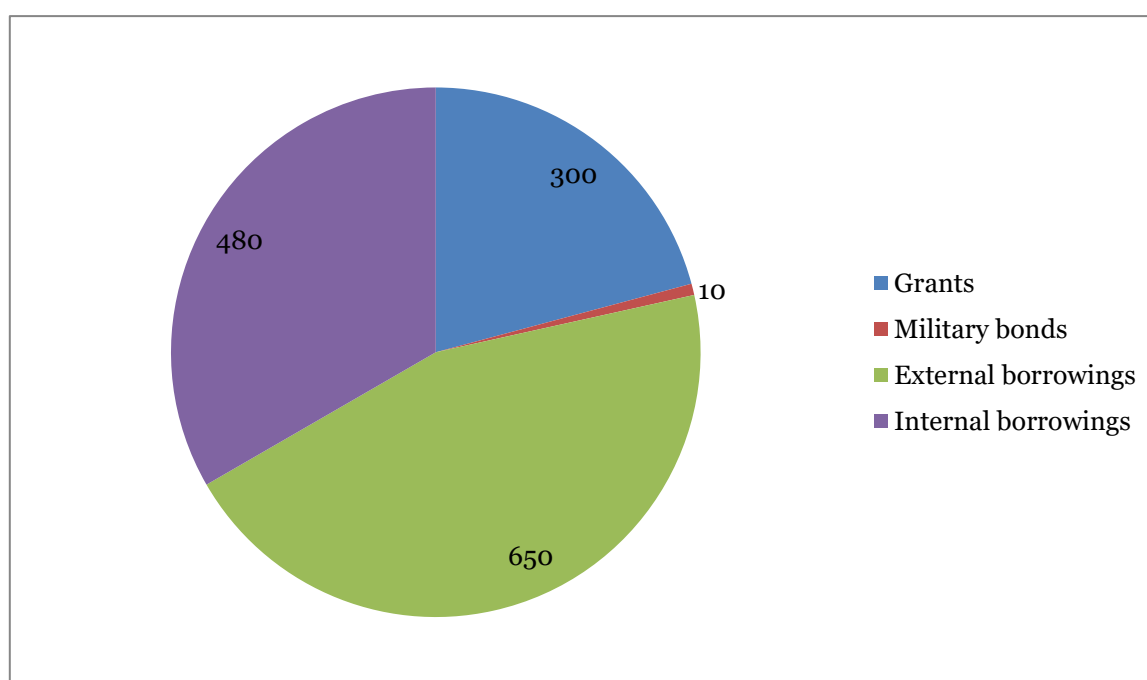


Figure 4. Sources of social transfers in Ukraine in 2023 (in billions of dollars)

Source: State budget web portal for citizens [17]

According to the results, digital transformation in public finance is relatively slow. In particular, there are no cloud technologies and architectural solutions for access by all public institutions, so it is difficult to control social spending. However, citizens can control social transfers on unique portals, but they do not influence the resolution of social issues. In addition, there are no statistics on the involvement of citizens in improving the social transfer sector through digitalisation, which raises problems in addressing this issue.

DISCUSSION

Researchers must carefully consider the experience and challenges of digital transformations in terms of the impact of social transfers on the efficiency of public finances today. In particular, scientists Hosny and Sollaci [21, p. 6], Gupta and Pal [22, p. 787], and Vujovic et al. [23, p. 883] emphasise that digital transformations in public finance are being implemented rather slowly, which leads to the fact that the system of social transfers is not improving. Using the examples of African countries, Vietnam, and India, researchers argue that the development of digital transformations is not fast enough due to poor logistics, low quality of Internet connections, and a lack of specialists

to work with new technologies. Also, government officials are not interested in making public finances accessible to public scrutiny.

At the same time, scholars Grunfeld [24, p. 12] and Perez-Escolar and Canet [25, p. 1060] believe that the field of digital transformation in public finance is quite dynamic. Thus, new software solutions for public authorities are constantly emerging, platform architecture is improving, and services for citizens' access to e-government will appear. The next stage will be the emergence of systems that will integrate the entire structure of public finance. Consequently, there is no consensus on this issue, indicating the importance of further research.

CONCLUSION

Thus, we can say that the issue of the challenges of digital transformation in terms of the impact of social transfers on the efficiency of public finances is important to study today. The paper describes the concept of "social transfers," which is characterised by payments to citizens from the state that are not related to their economic activity.

It has been found that the issue of social transfers became relevant in connection with the full-scale invasion. Thus, citizens became interested in the possibility of monitoring and controlling expenditures in public finance. Moreover, during the war, all funds required special reporting. In addition, much attention is paid to external sources of social transfers in the current environment, while payments to combatants are still insufficient.

It has been found that digital transformation can affect the sphere of social transfers. The introduction of information technology contributes to the openness, transparency, and accessibility of citizens' control over public finances. In addition, the online environment allows for effective interaction between different public authorities. Modern systems also allow public officials to inform citizens about the implementation of planned expenditures in the public space.

It has been determined that there are specific problems at the stage of introducing digital technologies in the field of social transfers. This is primarily due to the lack of a unified system that would allow combining all public finance data in one service. In addition, citizens do not have access to all services, which makes it impossible for them to control the social transfer sector.

It is worth noting that the problems with implementing digital solutions hurt the volume of social transfers and the size of their provision. This leads to a decrease in the efficiency of public finances, as both the government and citizens cannot unequivocally determine whether public finances are being operated transparently and openly.

Therefore, this issue is problematic. However, we can recommend developing mechanisms for involving citizens in the system of social transfer distribution, creating convenient services for displaying the level of social security expenditures, and creating joint electronic platforms for monitoring public finances by citizens and experts. This will significantly speed up the process of introducing digital transformation into the social transfer system.

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