

DOI: 10.55643/ser.1.69.2026.651

Iryna Sydor

Candidate of Economic Sciences,
Associate Professor of the Department
of Finance named after S. I. Yuriy,
West Ukrainian National University,
Ternopil, Ukraine;
e-mail: irunasudor@gmail.com
ORCID: [0000-0002-4410-7083](https://orcid.org/0000-0002-4410-7083)

BEHAVIORAL CORRECTION OF FINANCIAL DECISIONS OF ECONOMIC ENTITIES AS A MANAGEMENT TECHNOLOGY IN THE PUBLIC FINANCE SYSTEM

ABSTRACT

The purpose of the study is to theoretically substantiate and empirically test the management technology of behavioral correction of financial behavior of economic entities in the public finance management system, as well as to determine the possibilities of using behavioral tools.

The article reveals the essence of the management technology of behavioral correction as a component of the modern architecture of financial decision-making in the field of public finance. Its role in shaping predictable and socially responsible financial behavior of economic entities through the use of instruments of indirect regulatory influence aimed at changing the environment of financial decision-making without the use of administrative coercion is substantiated.

The study systematizes the principles, methods, forms, and instruments of behavioral correction in the field of public finance. Particular attention is paid to instruments of indirect behavioral correction. Their behavioral nature, mechanisms of influence on the decisions of economic entities, and possibilities of integration into the practice of public financial management are summarized.

The study used probabilistic modeling to assess changes in the financial behavior of economic entities, in particular, to determine the increase in voluntary payment of tax obligations. The results of the study showed that the use of behavioral tools of indirect influence provides a positive effect in increasing voluntary tax compliance.

The feasibility of integrating behavioral tools into the public finance management system as an institutionally built-in mechanism of "soft" regulatory influence aimed at increasing the adaptability of fiscal policy and strengthening tax discipline is substantiated. Directions for forming institutional, regulatory, and organizational prerequisites for the use of behavioral tools are proposed, in particular, the development of digital services, improvement of financial communications, use of experimental assessment methods, and strengthening interdepartmental coordination in the field of public finance.

Keywords: public finance, behavioral economics, financial decisions, management technology, behavioral correction, financial behavior, behavioral correction mechanism, financial instruments, state fiscal policy

JEL Classification: E62, H26, H30, H39, O17

INTRODUCTION

The effective functioning of the public finance management system in accordance with European approaches and principles of good governance is one of the determining conditions for Ukraine's European integration progress, ensuring financial stability and increasing the ability of public finances to withstand internal and external threats. Balanced and long-term sustainability of public finances creates the necessary prerequisites for restoring the economy on an inclusive basis, ensuring sustainable socio-economic growth, and forming a reliable financial foundation to guarantee the national security of the state. With the beginning of the negotiation process on Ukraine's accession to the EU (December 2023), issues of coordinating a set of tasks for reforming the public

Received: 05/02/2026

Accepted: 25/03/2026

Published: 31/03/2026

© Copyright
2026 by the author(s)



This is an Open Access article
distributed under the terms of the
[Creative Commons CC-BY 4.0](https://creativecommons.org/licenses/by/4.0/)

finance management system and adopting the Strategy for Reforming the Public Finance Management System for 2026-2030, developed taking into account current problems and modern challenges, became relevant. One of the objectives of the Strategy is defined as:

- ensuring predictability, consistency, and stability of the public finance management system, its compliance with the needs of wartime, following the current state of affairs, and EU standards;
- increasing the level of transparency, digitalization, and institutional capacity of the public finance management system (Strategy, 2025).

Under such circumstances, the effectiveness of the public finance management system is increasingly determined not only by the institutional capacity of the state and the quality of regulatory and legal regulation, but also by the ability to take into account the behavioral factors of financial decision-making by various economic entities, taking into account the possibility of its behavioral correction by public administration entities. Irrational behavioral reactions of various economic entities in conditions of uncertainty, turbulent changes, and military challenges are becoming systemic and increasing the risks to the functioning of public finances. In this context, the formation of a more adaptive public finance management architecture, focused on mitigating behavioral distortions and harmonizing strategic goals with tactical objectives, becomes a necessary prerequisite for increasing the effectiveness of state financial policy in modern conditions.

LITERATURE REVIEW

Research by modern scientists indicates the increasing role of behavioral factors in making economic and financial decisions. Within the framework of behavioral economics, the financial behavior of subjects is considered as the result of the interaction of rational motives with psychological and social factors that influence the choice process. Thus, in the works (Olsen, 1998), (Kishore, 2004), and (Felicia, 2012), it is proven that financial decisions are often made in conditions of bounded rationality, under the influence of cognitive biases, emotional reactions, and social norms, which cause deviations from classical models of rational choice.

An important theoretical basis for studying the behavioral aspects of economic activity is the theory of cognitive dissonance, developed by L. Festinger (1957). According to this concept, the contradiction between the beliefs and the actual behavior of an individual generates psychological tension, which prompts the adjustment of behavioral decisions or changes in the perception of information. In the field of financial relations, this is manifested in the tendency of economic entities to justify or rationalize their own financial actions, even if they do not correspond to the principles of economic expediency.

Modern research on behavioral economics emphasizes its interdisciplinary nature and importance for the analysis of economic processes at the macro and micro levels. The textbook "Behavioral Economics: From Theory to Practice," edited by I. Tatomyr and L. Kvasny (2022), emphasizes that the behavioral approach allows you to combine the tools of economics, psychology, and sociology to explain real models of behavior of economic agents. The application of such an approach in the field of public finance opens up opportunities for the development of new management tools aimed at correcting the financial behavior of taxpayers and other subjects of economic relations.

In the scientific literature, more and more attention is paid to the study of institutional aspects of the functioning of public finances. In particular, in the works (Zimmerman, 2005), (Sydor, 2025) it is emphasized that the public finance system is a complex institutional structure, within which the formation and use of financial resources depends not only on regulatory and legal mechanisms, but also on the behavioral characteristics of economic entities, the level of trust in state institutions and the quality of financial communications. This approach allows us to consider financial behavior as an important factor in the effectiveness of the state's fiscal policy. At the same time, international analytical studies in the field of public administration emphasize the need to introduce new management approaches that take into account the behavioral characteristics of economic entities.

Contemporary scientific research pays considerable attention to methods of modelling uncertainty in economic processes. In particular, the publication Monte Carlo simulation of random variables (2025) reveals the possibilities of simulation modelling of random variables for analysing complex systems in conditions of risk and uncertainty by repeatedly reproducing possible scenarios of events. The work of P. Bondarenko and L. Dobrynina (2018) justifies the use of bootstrap models for assessing financial indicators based on repeated selective reproduction of data, which allows determining the variability and reliability of statistical parameters. The use of these approaches is appropriate in the study of behavioural aspects of public finance, as they allow for the stochastic nature of financial processes to be taken into account, different scenarios of economic agents' behaviour to be modelled, and the impact of their decisions on public finance parameters to be assessed.

The work of I. Maly and M. Vlasenko (2017) analyze the problems of public sector management effectiveness in conditions of economic and institutional instability. The authors emphasise that the effectiveness of the public sector largely depends on the quality of management decisions, the rational use of resources, and the ability of state institutions to adapt to crises. The work emphasises the need to improve public administration mechanisms, strengthen the institutional capacity of the public sector, and develop strategic approaches to its development in an unstable socio-economic environment. This approach is important for further research on public finance and public administration, as it allows us to consider the effectiveness of public policy as a key condition for ensuring the stability and effective functioning of the public sector.

Within the concept of good governance presented in the document "The Principles of Public Administration" (2023), the document emphasizes the importance of transparency, accountability, and effective communication between the state and society to ensure the effectiveness of fiscal policy and increase trust in public institutions. At the same time, the scientific literature remains insufficiently developed on the issues of methodological support for assessing the effectiveness of behavioral instruments in the public finance management system, in particular in terms of their impact on the level of tax compliance, the duration of receiving social transfers, and the economic activity of households. This necessitates further research aimed at formalizing behavioral mechanisms of influence, developing methodological approaches to their empirical testing, and substantiating the possibilities of integrating behavioral instruments into the practice of state fiscal policy.

AIMS AND OBJECTIVES

The purpose of the study is to theoretically substantiate and empirically analyze the application of the management technology of behavioral correction of financial behavior of economic entities in the public finance management system, as well as to determine the tools and conditions for their effective integration into the architecture of financial decision-making in order to increase voluntary tax compliance, the effectiveness of transfer policy and ensure the financial stability of the state. The study is aimed at:

- revealing the essence of the management technology of behavioral correction as a component of the public finance management system;
- identification of the main tools for direct and indirect behavioral correction of the financial behavior of economic entities;
- substantiation of methodological approaches to assessing the effectiveness of behavioral interventions in the field of public revenue generation;
- conducting empirical testing of the proposed tools based on simulation data to determine their impact on the level of voluntary tax payment;
- assessing the economic feasibility of using behavioral tools from the perspective of their fiscal effect and the ratio of results and costs;
- determining the institutional and organizational prerequisites for integrating behavioral tools into public finance management practices.

METHODS

The methodological basis of the study is a set of complementary general scientific, economic-mathematical, and applied methods of scientific knowledge, which provide a comprehensive study of the management technology of behavioral correction of financial behavior of economic entities in the public finance management system, as well as an assessment of the effectiveness of using relevant behavioral instruments in the fiscal policy of the state.

The system approach method was applied to consider public finance management as a holistic multi-level system, within which the financial behavior of various economic entities is formed under the influence of institutional, informational, and motivational factors. The use of the system approach allowed us to determine the place of the management technology of behavioral correction in the architecture of financial decision-making and to substantiate the relationships between the instruments of the state's fiscal policy.

The method of structural-functional analysis was used to identify the main elements of the management technology of behavioral correction, in particular, the principles, methods, forms, and tools of its implementation, as well as to substantiate their role in the formation of responsible financial behavior of economic entities.

The comparative analysis method was used to compare instruments of direct and indirect influence on the financial behavior of economic entities, which made it possible to determine their differences in the nature of regulatory influence, level of obligation, implementation costs, and duration of obtaining a behavioral effect.

Economic and mathematical methods were used to formalize the impact of behavioral instruments on the results of the financial behavior of economic entities. In particular, probabilistic modeling, mathematical dependences of the utility function, and calculation of behavioral intervention effectiveness indicators (Δk , FE_k , CE_k) were applied, which allowed us to quantitatively assess the increase in voluntary tax payment and the economic feasibility of using the relevant instruments.

The experimental modeling method was used for empirical testing of behavioral instruments based on simulation data of control and test groups of taxpayers, which made it possible to assess the potential impact of various behavioral interventions on financial results and behavioral reactions of economic entities. Methods of economic and statistical analysis were used to interpret the results of empirical testing, in particular to assess the probability of a positive effect of behavioral instruments, determine their effectiveness, and compare their efficiency.

The method of induction and deduction was used to form theoretical generalizations regarding the role of behavioral instruments in the public finance management system and to build a logical structure of the research. The generalization of the obtained results allowed for the substantiation of the feasibility of integrating behavioral approaches into the practice of state financial policy.

RESULTS

We consider the management technology of behavioral correction as a component of the public finance management system aimed at correcting the financial behavior of economic entities by changing the environment for making financial decisions through the use by subjects of power of a set of methods, tools and ordered algorithms of actions in order to increase the efficiency of the functioning of public finances without the use of administrative pressure and coercion. Such management technology can also be interpreted as an institutionally built-in mechanism of indirect regulatory influence of the state, which allows transforming repetitive irrational patterns of financial behavior of economic entities into a predictable and manageable factor of financial policy aimed at ensuring balance, stability, and sustainability of public finances.

In political diplomacy, the absence of administrative pressure is interpreted as "soft influence", "soft action", "soft power" – the ability to achieve desired results not through coercion or sanctions, but through the attractiveness of values, norms, policies, and institutional practices (Sydor, 2025). In this sense, soft action means the formation of the addressee's preferences and behavior without direct administrative or forceful pressure (Zimmerman, 1986); achieving a result through changing the decision-making environment, rather than through directive actions; reasoned influence on a position or behavior without the direct use of formal powers (Sydor, 2025), i.e., adjusting behavior through the dissemination of norms, rules, standards, and expectations. In the discourse of behavioral correction of financial behavior of economic entities, to emphasize the absence of administrative pressure from public administration entities, it is advisable to use the "soft, non – coercive" approach. Engagement or "soft governance" (SIGMA Programme, 2023), which means the involvement, coordination, and correction of the behavior of partners on the basis of voluntariness, mutual interest, and trust. Thus, the management technology of behavioral correction serves as a way of exercising managerial influence using specific principles, methods, forms, and tools of managerial activity (Figure 1).

The strategic goal of behavioral correction is to form sustainable, predictable, and socially responsible financial behavior of economic entities by creating a favorable institutional, informational, and motivational environment for their functioning, by the state to ensure macrofinancial stability, national security, and increase the social well-being of citizens.

Tactical tasks in implementing the strategic goal include correcting the behavior of economic entities in the areas of ensuring:

- filling budgets of various levels through timely and full payment of taxes, fees, and social security contributions;
- increasing the level of social responsibility;
- increasing internal investment potential by stimulating long-term savings and directing them into priority financial instruments and investment projects for the state;
- forming a responsible attitude towards state borrowing and debt obligations as a long-term financial resource that requires prudent use and public support within the framework of the state's financial stability;
- correcting financial behavior in the field of consumer and credit decisions;

- forming trust in the state's financial institutions and the predictability of financial policy, which reduces the level of shadowing of economic activity and increases the willingness of economic entities to act within the legal framework.

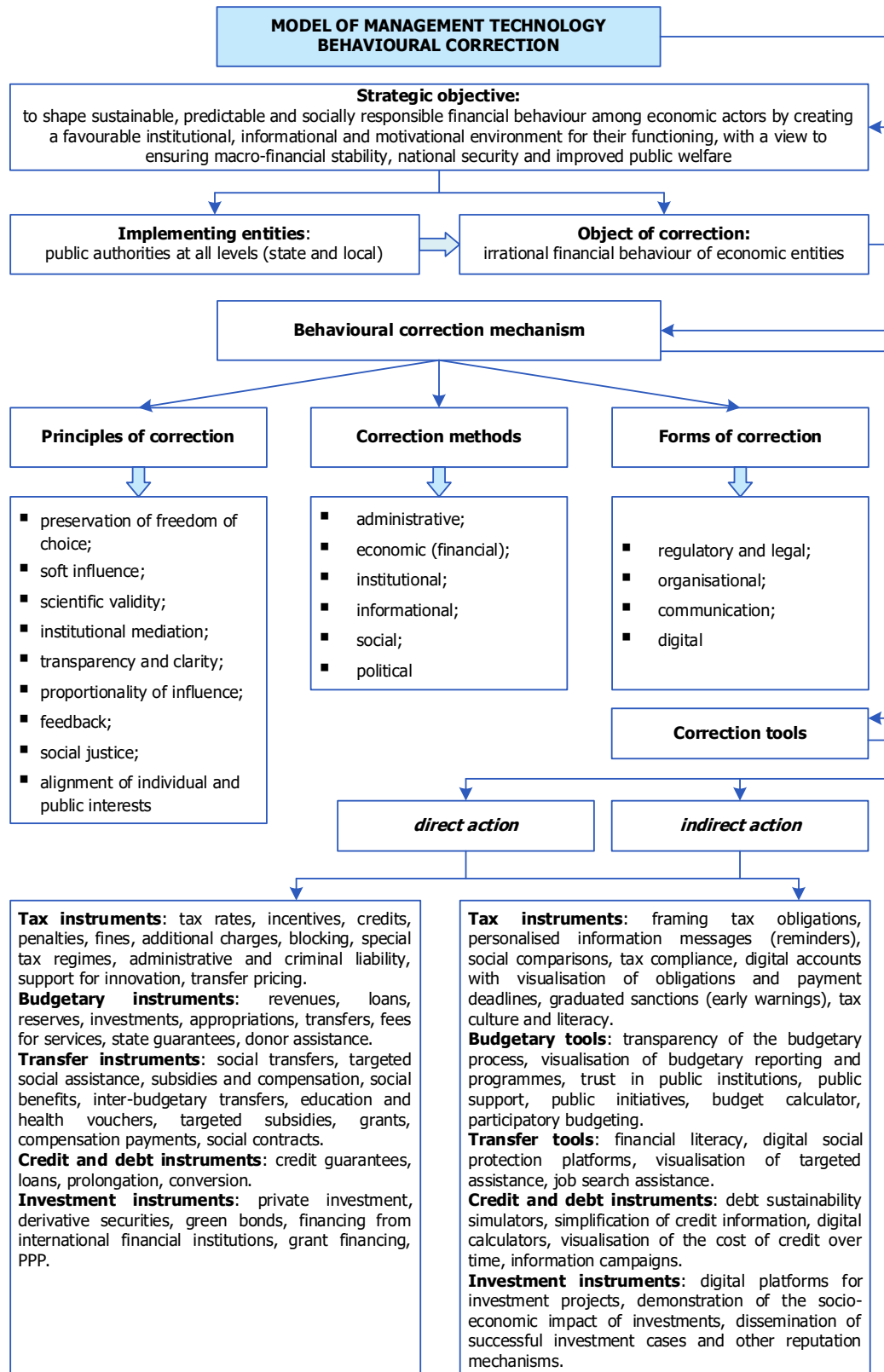


Figure 1. Conceptual model of management technology of behavioral correction of actions of economic entities in the field of public finance.

It should be noted that the financial behavior of economic entities is influenced by both direct and indirect adjustment instruments. In the public finance management system, the instruments of direct and indirect adjustment of the financial behavior of economic entities differ primarily in the nature of the state's influence, the degree of obligation, the motivation mechanism, the volume of administrative and financial costs, and the time period for achieving the result of behavioral reactions.

Direct correction tools are based on direct regulatory intervention by the state in the financial decisions of economic entities.

They change their financial behavior through clear regulation of legal provisions of activity, application of incentives or sanctions that directly affect the financial results of economic entities. Such influence is imperative in nature, limits the possibility of choosing alternative solutions, and forms minimally permissible deviations from the standards of financial behavior. Behavioral reactions of economic entities to the use of direct-action instruments are usually relatively fast and predictable, but require significant administrative and financial resources, increase regulatory pressure, and can cause adaptive or opportunistic reactions of economic entities, in particular, the search for ways to evade established norms and rules.

Indirect correction tools, on the contrary, implement the state's influence indirectly, without directly changing the financial results of economic entities or their income levels and without depriving them of their freedom of choice. Their action is aimed at transforming the decision-making environment by forming information signals, social norms, institutional expectations, and behavioral "cues." Such tools correct financial behavior by changing the perception, motivation, and assessment of alternatives, making the behavior desired by the state more likely without direct coercion. The effect of indirect action, as a rule, is gradual and long-term in nature, but is characterized by higher stability, less conflict in implementation, and low cost of implementing the outlined procedures. The key difference between these groups of tools is that direct correction tools perform the function of limiting and maintaining financial discipline, while indirect correction tools are aimed at forming internal motivation and social responsibility. In today's unstable economic environment and high level of uncertainty, effective public finance management requires a combination of direct and indirect adjustment of the actions of various economic entities, in which direct instruments outline the boundaries of acceptable financial behavior, and indirect instruments ensure voluntary compliance with norms and rules and support for the state's financial policy in a given direction.

Let us consider in more detail the possibility of practical implementation of indirect behavioral correction tools using the example of tax instruments (Table 1).

Table 1. Characteristics of behavioral correction tools of indirect influence.

No.	Behavioral correction tools	Methodological formalization / calculation method
1.	Tax tools:	
1.1.	Framing of tax liabilities	$U_i = Y_i - T_i + \alpha \cdot G(T_i),$ where, Y_i – taxpayer's income, T_i – tax liability, $G(T_i)$ – perceived utility of public goods financed by the tax, α – taxpayer's identification coefficient with public goals.
1.2.	Default options (default options)	The probability of voluntary tax payment can be expressed as: $P(C) = f(E, D),$ where E is the effort required to fulfill the tax obligation, D – behavior status as the default option.
1.3.	Social norms and comparisons	The compliance level of the payer i can be represented as: $C_i = C_i^0 + \beta (C^- \text{group} - C_i^0),$ where C_i – initial level of discipline, $C^- \text{group}$ – average level in the group, β – sensitivity to social norms. Public demonstration of $C^- \text{group}$ increases C_i provided $\beta > 0$.
1.4.	Salience through reminders	The probability of late tax payment can be represented as a function of attention: $P(D) = g(1 - A),$ where A is the level of attention to the tax obligation. Reminders work by increasing A, which decreases $P(D)$.
1.5.	Graduated sanctions	Expected cost of tax violation: $EC = \sum_{k=1}^n P_k \cdot S_k,$ where P_k is the probability of transition to the kth level of sanctions, S_k is the size of the sanction at this level.

Behavioral correction tools in the field of public revenue generation can be interpreted as elements of a holistic management technology of manipulative influence aimed at transforming the financial behavior of taxpayers without directly changing the main parameters of regulatory and legal support in the taxation system (tax rates, methods of their collection, benefits, taxation regime, etc.) or providing social benefits for their recipients. Framing tax obligations is based on changing the cognitive perception of tax as a mandatory loss of part of one's own income to the formation of ideas about it as a necessary investment in public goods.

In the behavioral dimension, this reduces the effect of avoiding financial costs and increases the subjective perception of fulfilling tax obligations as a social utility. This approach consists of changing the way tax information is presented; it affects the cognitive perception of the tax by reducing the loss effect (*aversion*) and increasing the payer's sense of involvement in the collective outcome. The main task of the state → through framing, is to increase α without changing T_i .

Default options (English *default – standard form*) are preset parameters, modes, or settings that are activated automatically if the user has not made a different choice, which allows saving time by automating the choice and is often based on the principle of least resistance, where the standard option is chosen more often (Muliar, 1997). Such options have already partially become a tool in the tax payment administration system. Their content implies that the most desirable behavior of the payer is set as a standard option, which is implemented automatically if the subject does not take active actions to change it (pre-filled declarations, automatic selection of a simplified reporting form, standard payment schedules, or their deferral). This approach is based on the conscious irrationality of payers, which is manifested in “procrastination (a psychological mechanism of protection against everything new)” (Festinger, 1957), avoidance of difficult decisions, and overload with choices. Under these conditions, the subject's inaction becomes the dominant strategy. The default option tool (*default options*) exploits this feature, transforming inertia from a source of evasion into a factor for increasing tax compliance. Given $D = 1$ (*payment – default*) and minimizing E , $P(C)$ increases without changing rates or applying sanctions.

The use of social norms and comparisons as a tax tool consists of informing taxpayers about the typical or average level of tax discipline in the relevant social, professional, or territorial group. The emphasis is not on violators, but on the fact that “the majority acts honestly” (Maiboroda, 2016). The behavioral value of the tool lies in the fact that a person is inclined to adjust their own behavior in accordance with the ideas about the norms established in society. Under conditions of information asymmetry, taxpayers often overestimate the scale of evasion, which legitimizes their own non-compliant behavior. Social comparisons allow us to reduce this cognitive error.

Tax tool for behavioral correction – salience through reminders, consists of increasing attention to the fulfillment of tax obligations through regular reminders, visual signals, personalized messages about payment deadlines, and the consequences of violating current legislation. Salience (from the English *salience* - prominence, distinction, significance) is “a characteristic of information, sign or stimulus that reflects the degree of its prominence and ability to attract the attention of the subject at the time of decision-making” (Festinger, 1957). A person tends to respond not to all available information, but primarily to that which is most visible, understandable, and relevant at a particular moment. That is why financial decisions are often made under the influence of salient factors, and not on the basis of complete rational optimization.

Salience tools work by compensating for the limited attention and short-term thinking that often underlie late tax payments, even in the absence of tax evasion intent. Regular notifications, personalized cues, and visualization of due dates increase the salience of a tax obligation at the time of decision, which reduces the likelihood of noncompliance. This can be described in terms of addiction.

In the context of indirect behavioral correction tools, salience is used as a mechanism of “soft influence” (Psychology Space, 2025). The state does not change the economic essence of the decision itself, but makes certain aspects of it more visible. For example, reminders about the tax payment deadline, visualization of the share of taxes in financing specific public goods, or emphasis on the long-term consequences of state (municipal) debt increase the salience of the relevant financial processes and, accordingly, change the behavior of economic entities.

Graduated sanctions provide for a gradual gradation of the taxpayer's responsibility, which at the initial stage is characterized by sending information messages and warnings, and to financial fines and coercive measures at repeated stages of evasion of tax liability, which forms a sense of fairness and predictability of the taxation system for the payer. From the point of view of behavioral economics, such gradualness reduces resistance to the tax regulation system and minimizes the risk of transition to shadow evasion strategies. The graduated system allows you to increase EC (Table 1) gradually, stimulating voluntary correction of the payer's financial behavior.

Taken together, these tools demonstrate that taxpayer irrationality can be not only a source of fiscal risks but also a predictable object of regulatory influence, which, if properly formalized and institutionalized, increases the efficiency of public revenue generation without increasing tax pressure.

Given that behavioral instruments of correlation influence are not used in practice and the values for their calculation are not officially presented, we will conduct an empirical test of the proposed methodology on simulation data. The purpose of the empirical testing is to assess the suitability and effectiveness of tax instruments for behavioral correction of taxpayers' financial behavior from the standpoint of their ability to increase the level of voluntary tax compliance with minimal fiscal and administrative costs. Within the framework of achieving the set goal, the following tasks have been identified:

1. Identify the causal impact of individual behavioral instruments on the probability and timeliness of payment of tax liabilities.
2. Compare instruments in terms of the magnitude of the expected effect and economic feasibility.
3. Assess the probability of obtaining a positive result under different scenarios of taxpayer behavior.
4. Substantiate the possibility of using conditional data for methodological verification of the effectiveness of behavioral interventions (structured psychological techniques aimed at modifying behavior and emotional perception of the new through changing actions).

The empirical study aims to determine the parameters of changing the financial behavior of taxpayers in terms of fulfilling tax obligations through the use of tax behavioral correction tools, in particular, tax obligation framing, default options, social norms and comparisons, salience through reminders, and graduated sanctions. The main hypothesis is that the use of indirect behavioral correction tools can increase the level of voluntary tax payment compared to standard administrative approaches. Additional hypotheses assume unequal effectiveness of the tools depending on the behavioral characteristics of payers and the presence of differences between short-term and long-term effects.

Empirical testing is based on an experimental approach using a control and several test groups. The control group operates under standard tax communication conditions without behavioral interventions. Test groups receive different types of behavioral influence, each of which corresponds to a separate correction tool. In the absence of access to real administrative data, a simulation model is used, within which a conditional set of taxpayers with given behavioral characteristics and a basic probability of fulfilling tax obligations is generated. This approach allows you to check the logic of assessing the effect and perform a comparative analysis of the tools.

The dependent variable is financial and behavioral outcomes, which can be represented as the fact of paying the tax liability, the timeliness of payment, or the share of the tax debt repaid. The independent variables are indicators of the impact of specific behavioral instruments, as well as control characteristics of taxpayers, in particular, income level, previous compliance history, risk appetite, and sensitivity to sanctions or social norms. Additionally, the costs of implementing each intervention are taken into account, which allows us to assess not only the effectiveness, but also the economic feasibility of using the instruments.

To quantify the impact of the instruments, a probabilistic model is used, within which the behavior of the taxpayer is described as a function of his individual characteristics and exposure to a certain behavioral intervention. The expected effect of the instrument is defined as the difference between the probability of a positive financial outcome in the test and control groups.

To assess the reliability of the results, the probability that the effect of the instrument is positive or exceeds a minimally significant threshold is calculated. When using simulated data, this probability is determined based on multiple repetitions of the experiment using the Monte Carlo method or bootstrap estimation (Monte Carlo simulation, 2024; Bondarenko, 2018).

The suitability of tax instruments for behavioral correction is determined by a set of criteria that include the expected increase in compliance, the ratio of effect and implementation costs, and the probability of achieving a positive result. Potential side effects are also taken into account, in particular, an increase in the administrative burden or the risk of a negative reaction from taxpayers. The main limitation of empirical testing is the use of conditional or simulated data, which does not allow direct extrapolation of the obtained numerical results to real tax practice. At the same time, this approach provides a check on the methodological logic of the assessment and creates a basis for further applied research using administrative data. Additional limitations are associated with the inability to fully take into account all behavioral factors and external shocks.

Let for each payer i , the outcome of behavior be measured by a binary variable:

$Y_i = 1$, if the tax liability is paid on time;

$Y_i = 0$, otherwise,

Baseline probability of voluntary payment without behavioral intervention:

$$P(Y_i = 1 | C) = p_C \quad (1)$$

After applying tool k :

$$P(Y_i = 1 | T_k) = p_{T_k} \quad (2)$$

Efficiency of tool application:

$$\Delta_k = p_{T_k} - p_C \quad (3)$$

Relative effect:

$$RR_k = \frac{p_{T_k}}{p_C} \quad (4)$$

The simulation approach estimates the probability of a positive outcome:

$$P(\Delta_k > 0) \text{ or } P(\Delta_k > \delta) \quad (5)$$

where δ is the minimally significant effect (for example, +2 p.p.).

Let's calculate the economic feasibility indicator.

Let: N – the number of taxpayers in the group, B – the average size of the tax payment, $Cost_k$ – the cost of the intervention. We get:

$$\text{expected additional fiscal effect: } FE_k = N \cdot \Delta_k \cdot B \quad (6)$$

$$\text{cost efficiency coefficient: } CE_k = \frac{FE_k}{Cost_k} \quad (7)$$

The cost-effectiveness coefficient (CE_k) reflects how economically feasible it is for the state to use a specific behavioral correction tool. It shows what fiscal result is obtained per unit of expenditure incurred on the implementation of this tool. This indicator is determined by formula 7, where FE_k is the additional fiscal effect of using tool k (additional tax revenues or faster than usual receipts of funds to the budget), $Cost_k$ is the total state costs for implementing this tool (development of messages, digital services, mailings, administration, etc.).

The fiscal effect FE_k in its simplest form can be calculated as:

$$FE_k = N \cdot \Delta_k \cdot B \quad (8)$$

where N is the number of taxpayers covered by the intervention, Δ_k is the increase in the probability of fulfilling the tax obligation as a result of applying the tool (the increase in compliance according to the results of foreign RCTs, according to a conservative estimate, is $\Delta = 0.04$ (4 v.p.), B – average tax payment.

The economic meaning of the indicator is read as follows:

1. If $CE_k > 1$, this means that the fiscal effect exceeds the costs, i.e., the instrument is economically feasible.
2. The higher the CE_k , the more effective the instrument is in terms of budgetary return.
3. Comparing CE_k for different tools allows you to rank them by implementation priority.

In the context of behavioral correction, this coefficient is especially important because: "soft" behavioral tools (framing, reminders, social norms) usually have a low implementation cost; even a moderate increase in compliance can give a high

CE_k value; this allows us to justify their use as a budget-effective alternative to strengthening tax control and the application of sanctions. The cost-effectiveness coefficient reflects the ratio between the additional fiscal effect obtained as a result of using a behavioral correction tool and the costs of its implementation. The value of this indicator allows us to assess the economic feasibility of implementing specific behavioral interventions and compare them with each other from the standpoint of budgetary returns.

Taking into account conditional input data (example): $N = 10,000$ taxpayers; $B = \text{UAH } 5,000$. Base probability of paying taxes before applying tax instruments: $p_c = 0.60$ (Table 2). The obtained conditional results indicate that all the considered behavioral correction instruments provide a positive effect of increasing voluntary payment of tax obligations compared to the baseline scenario.

Table 2. Summary data for calculating performance indicators from the use of tax behavioral correction tools.

Behavioral correction tool	Probability of voluntary payment (p_{TK})	Efficiency of the tool Δk (in. p.)	The probability of a positive result $P(\Delta k > 0)$	Cost interventions $Cost_k$ (thousands of grams of rn)	Expected additional fiscal effect FE_k (UAH million)	Cost-effectiveness ratio CE_k
Framing of tax liabilities	0.64	+4	0.92	120	2.0	16.7
Default option	0.69	+9	0.98	300	4.5	15.0
Social norms and comparisons	0.66	+6	0.95	150	3.0	20.0
Salience through reminders	0.65	+5	0.94	80	2.5	31.3
Graduated sanctions	0.72	+12	0.99	400	6.0	15.0

The greatest absolute effect is demonstrated by the default option and graduated sanctions instruments, which is due to the combination of behavioral and regulatory mechanisms of influence on the behavior of taxpayers. At the same time, salience instruments through reminders are characterized by the highest cost-effectiveness coefficient, which makes them especially attractive from the perspective of filling budgets at different levels.

The high probability of a positive outcome for all instruments confirms their potential suitability for practical application; however, comparative analysis indicates the feasibility of combining "soft" behavioral interventions with more stringent measures only in cases of systemic violation of tax discipline.

For the active implementation of the application of corrective instruments on the financial behavior of various economic entities in the practical sphere, it is necessary to form a complex of interrelated institutional, regulatory, organizational, and analytical prerequisites that ensure the systematic and effective application of corrective instruments on the financial behavior of economic entities. To this end, it is advisable to:

- normatively establish the possibility of using behavioral instruments in the field of public finance by amending the relevant legislation, defining their legal status, limits of application, and principles of soft regulatory influence;
- develop a unified methodology for identifying behavioral distortions in the financial behavior of economic entities, taking into account their segmentation by income level, type of economic activity, and degree of financial vulnerability;
- integrate behavioral correction tools into the architecture of financial decision-making by changing the mechanism for implementing procedures for paying taxes, receiving transfers, participating in state support programs, and accessing state financial instruments;
- provide digital support for behavioral interventions through the development of electronic cabinets, automated services, personalized messages, and digital feedback channels;
- improve the system of responsibility and incentives, moving from the dominance of sanction mechanisms to a graduated model of combining incentives, incentives, and proportional sanctions;
- simplify administrative procedures and reduce transaction costs for economic entities by standardizing forms, pre-filling data, and reducing the number of contacts with public authorities;
- provide an analytical and empirical basis for assessing the effectiveness of behavioral tools through the use of experimental and quasi-experimental methods, a system of performance indicators, and regular monitoring;
- improve the quality of government financial communications, focusing on transparency, clarity, and salience of information for different groups of economic entities;

- ensure interdepartmental coordination and institutional consistency of actions of public authorities in the field of application of behavioral tools;
- adhere to ethical principles and protect the rights of economic entities, in particular data confidentiality, non-discrimination, and the possibility of informed choice.

Such a set of measures forms a holistic methodological basis that allows transforming corrective impact instruments from episodic initiatives into a systemic element of public finance management.

DISCUSSION

The obtained results of the scientific research contribute to the further development of the behavioral direction in financial science and expand its application in the field of public finance management. The theoretical and applied provisions presented in the work deepen scientific understanding of the role of behavioral factors in the process of financial decision-making by economic entities and justify the feasibility of integrating behavioral correction tools into the public financial management system. The results of the study are based on a generalization of modern scientific approaches to the analysis of financial behavior and take into account the interdisciplinary nature of behavioral economics, which combines economic, psychological, and social aspects of decision-making.

In modern scientific literature, considerable attention is paid to the study of behavioral factors in the field of finance, primarily in the context of individual financial decisions and the functioning of financial markets. Studies by (Olsen, 1998), (Kishore, 2004), and (Felicia, 2012) show that behavioral biases, bounded rationality, and emotional reactions significantly affect the financial behavior of economic agents, causing deviations from traditional models of rational choice. Within the framework of behavioral finance, concepts of social psychology are also widely used, in particular L. Festinger's theory of cognitive dissonance, which explains the mechanisms of changing the behavior of individuals under the influence of the contradiction between beliefs and actual actions. At the same time, most scientific research (Zayats, 2024), (Kovalenko, 2012), (Voznyak, Benovska, 2021.), (Tversky, Kahneman, 1992) focuses mainly on the behavioral aspects of personal finance and financial markets, leaving out of due attention the issue of the functioning of public finances in the behavioral dimension.

Research (Tatomir, Kvasniy, 2022), related to the analysis of subjects' behavioral responses in the field of public finance, are manifested through the study of compliance with tax legislation, tax evasion, citizens' participation in the budgetary process, or the formation of trust in public financial institutions, which indicates the importance of taking psychological and social factors into account in the formulation of public financial policy.

At the same time, the scientific literature lacks a comprehensive approach to the interpretation of behavioral mechanisms in the public finance management system, which limits the possibilities of using behavioral tools in public administration practice. However, the results of the study have certain limitations that must be taken into account when interpreting their practical application. First of all, the limitations are related to the use of simulation data for empirical testing of behavioural tools. This approach allows us to test the methodological logic of assessing the effectiveness of behavioural interventions and to carry out a comparative analysis of tools, but it does not fully reflect the complexity of taxpayers' actual financial behaviour, which is shaped by a wide range of socio-economic, institutional, and psychological factors. In real-world conditions, the results of applying behavioural tools can be significantly influenced by the level of trust in public institutions, the quality of tax administration, the institutional environment, and the specifics of the national tax culture.

Within the framework of the conducted research, it is proposed to consider the management technology of behavioral correction as an institutionally built-in element of the public finance management mechanism, aimed at transforming the financial behavior of economic entities by changing the architecture of financial decision-making. This approach allows combining the tools of direct regulatory influence of the state with tools of indirect behavioral correction, in particular, information framing, the use of social norms, increasing the salience of financial signals, and the use of default options. As a result, a more flexible and adaptive model of public finance management is formed, capable of taking into account the limited rationality of economic entities and their behavioral reactions to changes in the economic environment.

During the discussion, the author's position on the need to integrate behavioral approaches into the mechanism for implementing the state's tax policy was determined. The proposed methodological model for assessing the effectiveness of behavioral instruments allows for quantitatively measuring their impact on the financial behavior of economic entities, in particular on the level of voluntary payment of tax obligations. The use of simulation modeling and probabilistic approaches to assessing behavioral effects creates the prerequisites for a more informed choice of management instruments and increases the effectiveness of state financial policy.

Thus, the results of the study confirm that taking into account behavioral factors in the process of forming and implementing the state's financial policy contributes to increasing the efficiency of public finance, reducing the risks of deviant financial behavior, and forming a more stable system of financial interactions between the state and society. The proposed approach to the use of behavioral correction tools expands scientific ideas about the possibilities of "soft" regulatory influence in the field of public finance and creates a methodological basis for further research aimed at forming a new model of public finance management in the context of modern socio-economic transformations.

The management technology of corrective influence is aimed at institutionally taking into account the bounded rationality and repeatability of behavioral distortions, transforming irrationality from a destabilizing factor into a predictable and manageable element of the public finance management system. Its goal is not to eliminate irrational behavior as such, which is impossible and economically inefficient, but to change the architecture of financial decision-making in such a way that even in the presence of cognitive biases and short-term incentives, more responsible, fiscally balanced, and socially acceptable behavioral strategies dominate. Corrective influence allows you to influence the financial behavior of economic entities indirectly, through information framing, setting default options, increasing transparency, social norms, and feedback, reducing the budget, and minimizing the need for regular audits of public finances. In a systemic dimension, such a management technology increases the adaptability of public finances to crisis and turbulent conditions, strengthens the ability of financial policy to self-correct, and also creates the prerequisites for the transition from reactive to proactive financial risk management. The inclusion of corrective influence in the public finance management mechanism ensures the coordination of short-term decisions with long-term goals of fiscal sustainability and social welfare, which, in the context of recurring political and budgetary cycles, is a key prerequisite for increasing the effectiveness of public financial policy.

CONCLUSIONS

The study substantiates the theoretical and applied foundations for using behavioural correction management technology to influence the financial behaviour of economic entities in the public finance management system. It has been proven that such technology is an institutionally embedded mechanism of 'soft' regulatory influence aimed at correcting financial decisions by changing the architecture of their adoption without the use of administrative coercion, which allows transforming irrational behavioural patterns into a predictable factor in the implementation of fiscal policy.

The study identifies the main instruments of direct and indirect behavioural correction of the financial behaviour of economic agents. It shows that direct influence instruments ensure compliance with financial discipline through regulatory restrictions and sanctions, while indirect instruments – framing of tax obligations, default options, social norms, salience of information, and graduated sanctions – form the internal motivation of economic agents to voluntarily fulfil their financial obligations. Their combination makes it possible to improve the effectiveness of public finance management in conditions of uncertainty and behavioural distortions.

A methodological approach to assessing the effectiveness of behavioural interventions in the field of public revenue formation is justified, based on determining the increase in the probability of voluntary tax payment, assessing the additional fiscal effect, and the cost-effectiveness ratio. The proposed system of indicators (Δk , FEk, CEk) allows for the quantitative measurement of the impact of behavioural tools on the financial behaviour of taxpayers and the comparison of their economic feasibility.

Empirical testing of the proposed instruments based on simulation data has shown that the use of behavioural interventions has a positive effect on increasing the level of voluntary tax compliance. The greatest increase in compliance is demonstrated by default option and graduated sanctions tools, while salience enhancement tools through reminders are characterised by the highest efficiency in terms of the ratio of results to costs.

An assessment of the economic feasibility of using behavioural tools confirmed their significant fiscal potential, as even a moderate increase in voluntary tax compliance provides a substantial additional budgetary effect at a relatively low cost of implementing the relevant interventions. This indicates the feasibility of using behavioural approaches as a cost-effective alternative to strengthening tax control.

At the same time, the integration of behavioural tools into public finance management practices requires the creation of appropriate institutional and organisational preconditions, among which the key ones are the regulatory consolidation of the possibility of applying behavioural interventions, the development of digital services and communication platforms, the improvement of financial communication mechanisms, the use of experimental methods for evaluating policy effectiveness, and ensuring interagency coordination in the field of public finance.

The results obtained expand scientific understanding of the possibilities for using behavioural tools in state fiscal policy and create a methodological basis for the formation of a more adaptive, effective, and behaviour-oriented model of public finance management.

Further scientific research will be aimed at deepening the theoretical, methodological, and applied aspects of the use of behavioural tools in the public finance management system. First and foremost, empirical research will be conducted based on real administrative data from public authorities using experimental and quasi-experimental methods, which will allow for a more accurate assessment of the impact of behavioural interventions on the level of tax compliance, the effectiveness of transfer policy, and the financial activity of households.

ADDITIONAL INFORMATION

FUNDING

The Author received no funding for this research.

CONFLICT OF INTEREST

The Author declares that there is no conflict of interest.

REFERENCES

1. Strategy for reforming the public financial management system for 2026–2030 (Draft). (2025). <https://jps.liga-zakon.net/document/NT4699>
2. Olsen, R. A. (1998). Behavioral finance and its implications for stock-price volatility. *Financial Analysts Journal*, 54(2), 10–18. <https://doi.org/10.2469/faj.v54.n2.2161>
3. Kishore, R. (2004). Theory of behavioral finance and its application to property market: A change in paradigm. *Australian Property Journal*, 38. https://www.prres.org/uploads/813/1510/Kishore_Behavioural_Finance_Application_Property_Market.pdf
4. Felicia, R. (2012). The impact of behavioral finance on stock markets. *Annals of the Constantin Brancusi University of Targu Jiu, Economy Series*, 3. https://www.utgjiu.ro/re-vista/ec/pdf/2012-03/6_FELICIA%20RAMONA%20BI-RAU%2045-50.pdf
5. Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford University Press. https://www.researchgate.net/publication/291356571_Cognitive_Dissonance_Theory_Festinger
6. Tatomyr, I. L., & Kvasnii, L. H. (Eds.). (2022). *Povedinkova ekonomika: vid teorii do praktyky: Mizhdystsyplinarnyi navchalnyi posibnyk*. Posvit. <https://finans.cial.lnu.edu.ua/wp-content/uploads/2022/11/PovedinkovaEKONOMIKA-2022-1.pdf>
7. Zimmerman, J. F. (1986). *Participatory democracy: Populism revived*. Praeger Publishers. 241 p. <https://www.amazon.com/Participatory-Democracy-Populism-Joseph-Zimmerman/dp/0275921328>
8. Sydor, I. P. (2025). Instytutsiyni vymir publichnykh finansiv: Metodolohichni pidkhody. *Aktualni pytannia ekonomichnykh nauk*, 8. <https://a-economics.com.ua/index.php/home/article/view/299/313>
9. Sydor, I. P. (2025). Novitni modeli upravlinnia publichnym finansamy cherez pryzmu povedinkovykh transformatsii. *Moderni finansy: Hlobalni vyklyky i natsionalna bezpeka. Ekonomichna dumka*, 1, 206–226. <https://dspace.wunu.edu.ua/bitstreams/f0c0791a-cb40-4f5a-b0fe-efdbf0b7c8f4/download>
10. SIGMA Programme. (2023). *The principles of public administration: A framework for ENP countries*. <http://www.sig-maweb.org/publications/Principles-ENP-%20Overview-Eng.pdf>
11. Muliar, V. I. (1997). *Samorealizatsiia osobystosti yak sotsialna problema (filosofsko-kulturolohichniy analiz)*. ZhITI.
12. Maiboroda, O. M. (Ed.). (2016). *Suspilni interesy v Ukraini: Hrupovyi vymir, zmist, shliakhy uzgodzhennia*. I. F. Kuras Institute of Political and Ethnic Studies, NAS of Ukraine. https://ipiend.gov.ua/wp-content/uploads/2018/07/suspilni_interesy_208.pdf
13. Psychology Space. (2025). *Povedinka osobystosti*. <https://psychology.space/psypedia/povedinka-osobystosti/>
14. Monte Carlo simulation of random variables. (2025). <https://caseware.com.ua/monte-carlo-3>
15. Bondarenko, P. V., & Dobrynina, L. V. (2018). Butstrap-modeli u finansovykh rozrakhunkakh otsinky investytsiynykh portfeliv. *Naukovyi visnyk Khersonskoho derzhavnoho universytetu. Seriya Ekonomichni nauky*, 32, 149–153. <https://ejournal.kspu.edu/index.php/ej/article/view/434>
16. Maliy, I., & Vlasenko, M. (2017). Resultatynnist upravlinnia publichnym sektorom v umovakh nestabilnosti. *Ekonomika i derzhava*, 2, 33–37. http://www.econ-omy.in.ua/pdf/12_2017/8.pdf
17. Zaiats, V. (2024). Finansova povedinka domohospodarstv u konteksti rozvytku rezylentnoho. *Demohrafiia ta sotsialna ekonomika*, 1(55), 41–59. <https://ojs.dse.org.ua/index.php/dse/article/view/177>

18. Kovalenko, E. A. (2012). Teoriia povedinkovykh finansiv ta yii zastosuvannya do prohnouzuvannya dokhidnosti finansovykh aktiviv. *Informatsiini systemy i matematychni metody v ekonomitsi*, 5, 119–126. <https://ir.kneu.edu.ua/bitstream/handle/2010/2804/Kovalenko.pdf>
19. Vozniak, H. V., & Benovska, L. Ya. (2021). Obgruntuvannya povedinkovykh zakonmirnostei pryiniattia rishen subiektamy finansovo-ekonomichnykh vidnosyn na rehionalnomu rivni. *Rehionalna ekonomika*, 1, 72–80.
20. Tversky, A., & Kahneman, D. (1992). Advances in prospect theory: Cumulative representation of uncertainty. *Journal of Risk and Uncertainty*, 5, 297–323. https://psych.fullerton.edu/mbirnbaum/psych466/articles/Tversky_Kahneman_JRU_92.pdf

Сидор І.

ПОВЕДІНКОВА КОРЕКЦІЯ ФІНАНСОВИХ РІШЕНЬ СУБ'ЄКТІВ ЕКОНОМІКИ ЯК УПРАВЛІНСЬКА ТЕХНОЛОГІЯ В СИСТЕМІ ПУБЛІЧНИХ ФІНАНСІВ

Метою дослідження є теоретичне обґрунтування та емпірична апробація управлінської технології поведінкової корекції фінансової поведінки суб'єктів економіки в системі управління публічними фінансами, а також визначення можливостей використання поведінкових інструментів.

У статті розкрито сутність управлінської технології поведінкової корекції як складової сучасної архітектури ухвалення фінансових рішень у царині публічних фінансів. Обґрунтовано її роль у формуванні передбачуваної та соціально відповідальної фінансової поведінки суб'єктів економіки через використання інструментів непрямого регуляторного впливу, спрямованих на зміну середовища ухвалення фінансових рішень без застосування адміністративного примусу.

У дослідженні систематизовано принципи, методи, форми та інструменти поведінкової корекції в царині публічних фінансів, зокрема податкові, бюджетні, трансфертні, кредитно-боргові та інвестиційні інструменти. Узагальнено їхню поведінкову природу, механізми впливу на рішення суб'єктів економіки та можливості інтеграції в практику публічного фінансового управління.

У межах дослідження застосовано ймовірнісне моделювання для оцінювання зміни фінансової поведінки суб'єктів економіки, зокрема визначення приросту добровільної сплати податкових зобов'язань. Розраховано показники результативності застосування інструментів поведінкової корекції, включаючи очікуваний фіскальний ефект і коефіцієнт ефективності витрат. Результати дослідження засвідчили, що використання поведінкових інструментів прямого впливу забезпечує позитивний ефект у підвищенні добровільного податкового комплаєнсу.

Обґрунтовано доцільність інтеграції поведінкових інструментів до системи управління публічними фінансами як інституційно вбудованого механізму «м'якого» регуляторного впливу, спрямованого на підвищення адаптивності фіскальної політики та зміцнення податкової дисципліни. Запропоновано напрями формування інституційних, нормативних і організаційних передумов використання поведінкових інструментів, зокрема розвиток цифрових сервісів, удосконалення фінансових комунікацій, використання експериментальних методів оцінювання та посилення міжвідомчої координації в царині публічних фінансів.

Ключові слова: публічні фінанси, поведінкова економіка, фінансові рішення, управлінська технологія, поведінкова корекція, фінансова поведінка, механізм поведінкової корекції, фінансові інструменти, фіскальна політика держави

JEL Класифікація: E62, H26, H30, H39, O17