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ASSESSING THE UTILITY OF EU STRUCTURAL FUNDS INVESTMENTS IN LATVIA

Abstract

The purpose of the article is to develop an integrated methodology for assessing the utility of European Union structural funds investments, combining the theory of relative utility, Utilization-Focused Evaluation and the Analytic Hierarchy Process (AHP) method, considering the theory of stakeholders. The tasks of the study include identifying and classifying stakeholders, defining criteria and alternatives, creating a hierarchy of dominance, performing pairwise comparisons and calculating the final utility assessment. The methodology is based on a combined approach: determining the weights of stakeholders, calculating AHP priorities and the Vargas formula for the final synthesis. The data were obtained in an expert survey, where each expert represented a cluster of stakeholders. The results show that in Latvia for the EU structural funds planning period 2021-2027, the priorities «A More Social and Inclusive Europe» and «A Greener Europe» are prioritized, while «Just Transition Fund» and «A Europe Closer to Citizens» are the lowest. The original contribution is the development of an integrated evaluation model that combines AHP with a relative utility approach and stakeholder weight-

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ing, providing a balanced and practical tool for cohesion investment decision-making.

Key Words:

Analytic Hierarchy Process (AHP); cohesion policy; EU Structural Funds; investment; performance evaluation; relative performance; stakeholder theory; sustainability; utility.

JEL: C44; H54; O22; Q01; R58.

2 figures, 4 table, 36 references.

Problem Statement

EU Structural Funds investments are an essential tool for the implementation of regional development and cohesion policy, providing significant funding to promote economic, social and environmental sustainability. In the 2021-2027 programming period, cohesion policy is the largest EU investment programme with a budget of €392 billion, which underlines the need for efficient and effective use of resources (Molica & Santos, 2025). However, despite significant efforts, the role of evaluation in cohesion policy remains limited, mainly in relation to the choice of appropriate methods and the integration of stakeholders' interests (Koudoumakis et al., 2022). Pegan and Lovec (2025) emphasise that EU Structural Funds investments is not only a financial distribution, but also a communication and participation mechanism that ensures the legitimacy of the policy and public trust. Stakeholder integration cannot be reduced to formal consultations – it is essential to ensure that EU Structural Funds investments are relevant to regional needs and to reduce conflicts between different interests. Insufficient information flow can lead to low public trust and limit the impact of policies, so the quality of communication is a critical factor in the implementation of EU Structural Funds investments. In the 2021-2027 programming period, cohesion policy is more complex than before, as sustainability objectives, digitalisation and climate neutrality must be integrated, which requires wider participation of stakeholders. **The purpose of the article** is to develop an integrated methodology for assessing the utility of EU Structural Funds investments, combining the theory of relative utility, Utilization-Focused Evaluation and the Analytic Hierarchy Process (AHP) method, considering the theory of stakeholders. The methodology involves determining the weights of stakeholders, creating a hierarchy of investment priorities and calculating the final utility assessment, ensuring a multidimensional view of investment utility and transparent decision-making.

The relevance of the study stems from the need to improve the quality of the evaluation of the effectiveness of EU fund investments, ensuring transparency, participation and sustainable development. The problem is that existing methods often fail to integrate the interests of stakeholders and provide practical evaluation of effectiveness in decision-making. Research question: How to integrate the theory of relative effectiveness and Utilization-Focused Evaluation with the AHP method to ensure a balanced and practically applicable evaluation of EU fund investments within the framework of stakeholder theory? Stakeholder theory provides for the determination of weights, the AHP method provides for the calculation of alternatives (investment priorities), while the final evaluation of effectiveness is obtained using the Vargas (2010) formula.

Although cohesion policy sets strategic objectives, the central task of this study is to assess the effectiveness of EU Structural Funds investments, rather than to analyse policy priorities. Policy objectives (e.g. «Greener Europe», «Social and Inclusive Europe») are used as evaluation criteria in the study to demonstrate the practical application of the developed methodology. The original contribution is the development of an integrated evaluation methodology, providing a balanced tool for evaluating investments in different policy contexts.

Geographical focus of the study. Latvia was chosen because it is an EU Member State in which EU Structural Funds investments account for a significant share of public investments (European Commission, 2025). These investments in Latvia are strategically important for ensuring regional development and sustainability, as they affect the modernisation of infrastructure, the promotion of innovation and the transformation of the economy. The implementation of investments reflects the challenges typical of smaller Member States: limited resources, high dependence on EU funding and the need to integrate the objectives of sustainability, digitalisation and climate neutrality. These factors make Latvia a suitable case study that can be adapted to other countries with a similar investment structure.

Literature Review

Investment evaluation is a systematic process that allows for the analysis of the effectiveness, utility and relevance of projects and programmes to the objectives set. Evaluation involves data collection and in-depth analysis. Since evaluation is a continuous activity, it contributes to the acquisition of new knowledge and the introduction of innovations (Grozdić & Demko-Rihter, 2023). The evaluation of investment programmes such as cohesion policy has been an area of scientific interest over the years. At least 83 evaluation methods can be found in the literature (Bachtler et al., 2000). Cohesion policy is the main EU investment policy and the world's largest regional development programme, with a budget of €392 billion for the period 2021-2027. Both its significant financial size and political importance have attracted significant academic interest, which discusses its operation. Research in this area has mainly been conducted from two perspectives. The first examines the socio-economic impact. The second, more recent, examines the absorption capacity of allocated resources (Molica & Santos, 2025). Despite significant efforts by EU Member States and regions, the role of evaluation in cohesion policy remains limited, mainly due to the choice of appropriate evaluation methods (European Commission, 2024; European Commission, 2025). The choice of evaluation methods depends on the type of intervention and the evaluation criteria specific to the evaluation questions (Capello et al., 2024). The most effective way is to combine different methods, since the complexity of the intervention, the participatory nature of cohesion policy and the shortcomings of each method require their joint application (Koudoumakis et al., 2022).

Utility theory is a foundation of economics, especially in microeconomics, as it provides a tool for the analysis of behaviour and decision-making. Initially, economists used utility theory to explain two main concepts: consumer demand behaviour and the justification and improvement of economic policy (Takemura, 2019). According to the Homo Economicus concept, utility is considered an inherent characteristic of everyone (Munien & Telukdarie, 2025). The individual is considered a rational utility maximize who makes decisions based on personal benefit (Parada-Contzen & Parada-Daza, 2023). The concept of utility is interpreted in modern literature as subjective and closely related to individual well-being, not only to material properties (Di Foggia et al., 2025). Historically, two main approaches are distinguished in utility theory: (1) the cardinal approach – assumes that utility can be measured and expressed in specific units («utili»); (2) ordinal approach – considers utility to be a subjective concept that cannot be directly measured, but can be compared between individuals (Mankiw, 2021). Traditional utility theory assumes of a rational individual – a person can process available information and tries to maximize their utility, considering budget constraints. Utility is defined as the ability to satisfy human needs, and it is essentially a psychological concept (Akkaya, 2021). In addition to traditional approaches, relative utility theory offers a perspective where an individual's utility depends not only on personal consumption, but also on comparison with the consumption of other individuals. This approach emphasizes the importance of social comparison in decision-making and behaviour. Utilization-Focused Evaluation can be applied to different types of evaluations – formative, summative, process and impact evaluations – and can be used with different research methods and data types, considering participants, funders or other stakeholders (Patton & Campbell-Patton, 2021). This approach emphasizes that the success of an evaluation depends on the use of its results. Therefore, early and active user involvement, realistic methods, and a constant focus on how the evaluation results can be used in decision-making and organizational development are essential. Relative utility theory complements the classical view by emphasizing the importance of social comparison in decision-making (Wang et al., 2015). Utilization-Focused Evaluation focuses on practical applicability, emphasizing that the success of an evaluation depends on the use of the results (Patton & Campbell-Patton, 2021). This approach promotes early involvement of stakeholders and transparency of decisions (Rey & Fortin, 2023).

By integrating relative utility with Utilization-Focused Evaluation, it is possible to combine quantitative comparison with practical applicability, ensuring theoretical validity and results that meet user needs. However, models that simultaneously integrate these approaches with multi-level decision support methods, such as AHP, are lacking in the literature.

The AHP method has been widely used for decision support, as it allows for the structuring of complex issues in a hierarchical form and for pairwise comparisons (Saaty, 2001). By integrating AHP with stakeholder theory, it is possible to ensure that the assessment results are both theoretically sound and practically applicable in different policy contexts (Ananda & Herath, 2003; Mascena et al., 2021). Participatory assessment significantly improves institutional performance, as the active participation of stakeholders promotes the transparency and usefulness of decisions (Elhakim, 2025). Integration with the AHP method allows for the effective inclusion of stakeholder preferences. The integration of the AHP method, considering the interests of stakeholders, has been applied in forestry planning, for example, in a study on forest planning, AHP was used to include stakeholder preferences, facilitating balanced decision-making between ecological, economic and social aspects (Raman et al., 2025). In energy sector planning, a framework for energy planning that considers the interests of different stakeholders and promotes sustainable development was developed by integrating a multi-level decision-making tool with stakeholder analysis (Mascena et al., 2021). Combining AHP with stakeholder theory can ensure that decisions are made considering the interests, priorities and values of different stakeholders.

Despite the extensive literature on AHP and stakeholder analysis, an integrated approach that combines the theory of relative utility, Utilization-Focused Evaluation and the AHP method is lacking in the context of EU Structural Funds investments. This study proposes a new model that provides a balanced assessment, combining theoretical justification with practical applicability in cohesion policy decision-making.

Methodology

Utility evaluation is an essential tool in the evaluation of investment programs, as it ensures structured, transparent and reasoned decision-making and provides an opportunity to assess the extent to which investments provide significant value to society. The methodology allows for the identification of priority investment directions by integrating the perspectives of the parties involved, which are essential for policy decision-making. Utility evaluation involves stakeholders in the evaluation process at any stage (Rey & Fortin, 2023). Utilization-Focused Evaluation focuses on practical applicability, while relative utility focuses on comparing alternatives (investment priorities), while AHP provides a structured calculation of investment priorities.

The purpose of the methodology is to provide a structured, repeatable and scientifically sound approach to assessing the utility of EU Structural Funds investments, integrating stakeholder perspectives and multi-level priority analysis. It is applicable to both ex-ante and ex-post evaluations: ex-ante application allows for forecasting investment priorities and identifying risks, while ex-post analysis assesses effectiveness by comparing the results obtained with the planned objectives. The methodology is adaptable to different investment contexts, allowing for changing the range of stakeholders, criteria, investment priorities and weights, while maintaining a structured and repeatable process. The task of the developed methodology is to provide an integrated approach to assessing the effectiveness of EU Structural Funds investments, combining stakeholder theory and utility theory with the multi-criteria analysis method. It provides for a clear definition of the evaluation stages and their sequence to ensure a structured and repeatable process. At the same time, the methodology is designed to reduce the risks of subjectivity and data availability limitations by using consistency checks and sensitivity analyses. The methodology has limitations: data availability, number of experts, and subjectivity in pairwise comparisons. These risks are mitigated by using multiple independent experts and controlling the consistency of the AHP Consistency Ratio (CR) (CR ≤ 0,10). See the summary of all limitations of the methodology and their solutions in Table 1.

The authors have developed a method for assessing the utility of EU Structural funds investments in accordance with the methodology shown in Table 2.

The methodology includes nine consecutive stages. In the first stage, stakeholders are identified using stakeholder theory and a clustering approach to ensure a representative view of different interests. To ensure transparency of the analysis and reduce complexity, while ensuring the representation of all stakeholders in EU Structural Funds investments, the study uses a clustering approach based on stakeholder theory (Mitchell et al., 1997). Stakeholders are grouped into six clusters: institutions involved in the EU funds system, ministries, municipalities, public and industry organizations, entrepreneurs, and academic institutions. This approach ensures representativeness, legitimacy, and data quality, which are essential in assessing the effectiveness of EU Structural Funds' investments.

Table 1

Limitations of the investment utility assessment methodology and their solutions

Limitation	Description	Impact on methodology	Solutions
Data availability	Limited information on investment programs, stakeholders and strategic documents	Incomplete definition of criteria or alternatives	Use official EU and national documents; update datasets regularly; document data quality
Methodology adaptability	Adjustment to new priorities requires additional resources	May hinder repeatability in future periods	Use digital tools (templates, AHP calculator)
Risk of subjectivity	Expert assessments in pairwise comparisons can be subjective	May cause inaccuracies in prioritization	Involve multiple independent experts; document justification; control consistency score (CR ≤ 0,10)
Criteria comparability	Quantitative and qualitative criteria difficult to compare	Makes AHP calculations difficult	Normalize quantitative data; define scales for qualitative criteria; use expert discussions
Number and competence of experts	Insufficient number of experts or diversity of expertise	Affects objectivity and reliability of comparisons	Involve experts from different sectors; define selection criteria; perform AHP consistency checks

Source: compiled by the authors.

Table 2

Stages of the methodology for evaluating the utility of EU Structural Funds

Stage	Contents	Method	Tool	Result
1	Identifying stakeholders	Stakeholder theory	Stakeholder Clustering	Identified stakeholders
2	Determining stakeholder weights	*Salience + A* analysis	Stakeholder Survey	Stakeholder weight matrix
3	Criteria selection	UN Sustainable Development Goals Cohesion Policy in Latvia 2021-2027 planning period objectives	Analysis of UN and EU Planning Documents	Criteria set

Stage	Contents	Method	Tool	Result
4	Defining alternatives	EU Structural Funds investments	Analysis of Program Descriptions	Alternative set
5	Creating a structure of criteria and alternatives	AHP dominance hierarchy	Hierarchy Visualization	Dominant hierarchy (objective – criteria – alternatives)
6	Pair comparisons	AHP alternative evaluation according to criteria	Expert Survey	Comparative priority table
7	Calculating relative alternatives	AHP method (Saaty scale)	Microsoft Excel Calculations	Priority weights (for criteria and alternatives)
8	Determining the final utility rating	Vargas formula: AHP weight × stakeholder weight	Microsoft Excel Calculations	Combined utility assessment
9	Summary and interpretation of results	Ranking of alternatives based on AHP results	Microsoft Excel Calculations and Images	Visualized results

Source: compiled by the authors.

In the second stage, stakeholder weights are determined based on *Salience* analysis (Mitchell et al., 1997) and expert assessments. The *Salience + A* model was used to determine the weights, which complements the classic three-dimensional approach (power, legitimacy, urgency) with an attitude dimension, allowing for the assessment of not only the structural impact, but also the stance of the stakeholders towards the investment. Experts assessed each cluster using the Likert scale but did not assess their represented cluster to reduce subjectivity.

In the third stage, a system of criteria was developed that provides a multidimensional approach to assessing the effectiveness of EU Structural Funds investments. The selection of criteria was based on internationally recognized frameworks – the United Nations Sustainable Development Goals (SDGs) and the European Union Cohesion Policy Strategic Directions 2021–2027 (European Commission, 2024). Such an approach ensures that the selected criteria reflect global sustainability principles and regional development priorities, while maintaining consistency with the theory of the stakeholders. The selected criteria cover five dimensions: economic sustainability, social impact, environmental impact, technological sustainability and governance with ethical aspects. Economic sustainability describes the contribution of investments to growth and competitiveness, social impact – investment in societal well-being and inclusion, environmental impact – achievement of climate goals and resource efficiency, technological sustainability – promotion of innovation and digitalization, while governance and ethics – transparency, quality and regulatory compliance. These criteria are mutually independent, exhaustive and comparable, which is essential for the application of the AHP method. The selection of criteria was carried out by analysing EU and United Nations strategic documents (European Commission, 2024) and scientific literature on sustainability assessment. To reduce the cognitive load of experts in pairwise comparisons, the 17 UN goals were combined into five dimensions. As a result, a structured system of criteria was created, which serves as the basis for creating a hierarchy and further calculations.

In the fourth stage, investment priorities were defined, which are the basis for assessing the effectiveness of EU Structural Funds investments. The development of investment priorities was based on the strategic documents of the European Union's cohesion policy 2021–2027 (European Commission, 2024), the Partnership Agreement of Latvia with the European Union (European Commission, 2022) and the National Development Plan (Cross-Sectoral Coordination Centre, 2020). This approach ensures that the selected investment priorities are aligned with regional priorities and reflect current investment directions. The investment priorities were formulated to be mutually exclusive, exhaustive and comparable, which is essential for the application of the AHP method. The selected set includes six cohesion policy objectives: Smarter Europe, Greener Europe, More connected Europe, More social and inclusive Europe, Europe closer to citizens and Transition to climate neutrality. The content of each investment priority reflects a specific strategic focus – for example, Greener Europe focuses on climate neutrality and environmental protection, while Transition to climate neutrality aims to mitigate the socio-economic impacts in regions most affected by the transition to a low-carbon economy.

In the fifth stage, a hierarchical structure was created that provides a multi-level analysis for assessing the effectiveness of EU Structural Funds investments. This stage used the AHP method, which is an internationally recognized approach to multi-criteria decision-making. The hierarchy was built in three levels (Table 3).

In the sixth stage, pairwise comparisons were performed. AHP allows experts to express an assessment of the extent to which one element is more important than another, providing a structured and quantitatively interpretable decision-making process. Pairwise comparisons are essential because they form the basis for calculating priority vectors and checking consistency, which guarantees the logical coherence of the assessments.

Table 3

Dominance hierarchy according to the AHP method

Dominance hierarchy		
Level 1 (Objective)	Level 2 (Criteria)	Level 3 (Alternatives – Investment priorities)
Utility of EU Structural Funds investments	Economic sustainability	A Smarter Europe
	Social impact	A Greener Europe
	Environmental impact	A More Connected Europe
	Technological sustainability	A More Social and Inclusive Europe
	Governance and ethics	A Europe Closer to Citizens
		Just Transition Fund

Source: compiled by the authors.

Although the study uses the principle that each expert represents a specific cluster of stakeholders, this does not mean that the results can be reduced to an individual opinion. Expert assessments were structured using AHP, which provides consistency control and calibration of weights, thus reducing the risk of subjectivity. The expert's view is interpreted as an institutional perspective that reflects the interests of the specific group, rather than personal expressions of preferences. The recommendations resulting from the analysis are not to be considered an automatic basis for policy decisions, but rather an analytical tool that helps identify areas where discussion and coordination are needed. Such an approach is in line with the principles of good governance, as it promotes transparency and participation, rather than replacing the decisions of policymakers. The aim of the study is not to determine the distribution of investments, but to provide a multidimensional perspective based on a structured methodology and the integration of stakeholder theory.

This study did not use a classic questionnaire. Data collection was based on the AHP method, where experts filled in pairwise comparison matrices. This approach is the basic principle of AHP and ensures consistent priority calculation. Since the experts performed the comparisons manually, the raw data is not available in digital format, and the appendix does not include a list of questions. The matrices used in the study were compiled and analysed using *Excel* tools. Expert data collection was carried out in May 2025. In this study, each expert is identified as a representative of a stakeholder cluster. 6 experts were selected based on their professional experience, education, and relevance to a specific stakeholder. In this pilot demonstration phase, purposive, stratified key-informant selection across six stakeholder clusters was used to ensure functional coverage of interests and to obtain pairwise comparisons with strict consistency control (CR ≤ 0,10) within the AHP framework. Inclusion criteria: (i) at least 10 years of experience in the cluster, (ii) decision-making/analytical role (mandate, resource or regulatory influence), (iii) willingness to work according to a structured elicitation protocol. Exclusion criteria: (i) conflict of interest, (ii) CR > 0,10 after correction attempts, (iii) inability to document the rationale for judgments. Recruitment was conducted from professional registers, industry councils and academic institutions. Randomization was not applied in the pilot as the aim was methodological demonstration and not population parameter estimation. In the full-scale phase, it is planned to involve 2-3 experts in each cluster and use a stratified random sample from a predefined candidate framework (stratification: region/institutional type) to increase representativeness and reduce selection bias.

Representativeness of the expert panel – rationale for the pilot demonstration design: stakeholder clusters are represented by one expert. The aim of this version is a methodological demonstration in which logical consistency is critically ensured (CR≤0,10). The size of the panel is adequate for a methodological demonstration because: the aim of AHP is to obtain comparisons in a structured manner and check consistency, not to estimate population frequencies. Arar CR threshold (CR ≤ 0,10) logical consistency is ensured at both the individual and aggregate levels (Saaty & Vargas, 2001; Scala et. al, 2016). Stratified cluster representation ensures functional coverage of interests (institutions, ministries, municipalities, NGOs/industries, entrepreneurs, academia), which is more relevant in the context of AHP than a large but undefined sample. Structured expert elicitation is demonstrably more important than mechanically increasing the number of participants in the relevant contexts (Hemming et al., 2018; O'Hagan, 2019). Aggregating group AHPs with a geometric mean is a recommended practice that reduces the impact of individual biases and improves transparency. This approach is widely documented in methodological reviews (Ishizaka & Labib, 2011).

In this study, we translate theoretical frameworks into measurable elements and clearly demonstrate their integration into the AHP model. Stakeholder salience is operationalized by assigning three attributes'power, legitimacy, and urgency'to each of which are assigned documented verifiable indicators and rated on an AHP scale of 1 – 9; these ratings inform cluster selection and weighting in the hierarchy (Mitchell et al., 1997). Utilization-Focused Evaluation was operationalized by identifying primary users, intended uses, and evidence of process usage, which frames the decision context and helps refine the set of criteria (Patton & Campbell-Patton, 2021). In the AHP framework, the objective (prioritization of cohesion investments) is decomposed into criteria and sub-criteria with clear operational definitions and indicators. Pairwise comparisons generate local priors with consistency testing (CR ≤ 0,10) at both the individual and aggregate levels (Scala et.al., 2016; Ishizaka & Labib, 2011). This study is a methodological demonstration of the integrated approach; therefore, no formal simulation of panel composition changes is performed in this version. Stability is ensured by AHP CR control and group aggregation with geometric mean. Min–max scatter analysis serves as an indicator of robustness. Given that the raw data are not digitized, a full sensitivity analysis will be added in the extended version.

Considering that the AHP method is based on pairwise comparisons expressed from the experts' point of view, it is important to ensure that each expert represents one of the previously defined stakeholder clusters. The expert's opinion is not interpreted as an individual, but as the view of a specific stakeholder position. Experts compared criteria at the second level of the hierarchy in relation to the objective, as well as at the third level of investment priorities in relation to each criterion. The Saaty scale (1 – 9) (Saaty, 2001) was used for comparison, where 1 denotes equal importance, and 9 – a very high preponderance of importance. The calculated priority vectors were normalized to ensure that their sums were equal to 1, which is a mandatory condition for the correctness of the AHP synthesis. A CR was calculated, which should not exceed 0,10 for the assessments to be considered consistent. If the CR exceeded the permissible limit, the experts revised their assessments again. The method assumes compliance with logical consistency and shows how consistent the assessments have been provided by the experts. The CR is calculated using the formula:

$$CR = \frac{CI}{RI}, \text{ where } CI = \frac{\lambda_{\max} - n}{n-1}$$

where: λ max – the largest eigenvalue of the matrix

n – the number of elements being compared

RI – the Random Index, which depends on the size of the matrix.

A CR value of less than 0,10 indicates logical consistency in expert assessments. In some cases, up to 0,20 can be allowed, but not more. If the CR exceeds these limits, experts should repeat the comparisons or conduct a group discussion to eliminate contradictions (Saaty & Vargas, 2001). The author concludes that the assessments of the involved experts are adequately coordinated, since the consistency ratio in the expert questionnaires is consistent with this criterion.

In the seventh stage, investment priorities were calculated using the AHP method. The results of the expert pairwise comparisons allowed us to determine the importance of each investment in relation to a specific criterion.

In the eighth stage, a combined utility assessment was calculated for each investment priority, integrating the AHP results with the importance of the parties involved. This approach ensures that the final decision reflects not only the hierarchical analysis, but also the real impact of interests, which is essential in the context of EU Structural Funds investments. The calculation was based on the Vargas formula (Vargas, 2010), which is recommended in multi-level assessments where it is necessary to combine the views of different parties with analytical weights. In addition, ranges (Min–Max) and average values were analysed, which reflect the robustness of the decision and the polarization of views between clusters.

In the ninth stage, the interpretation of the final utility ratings was performed, based on the normalized results calculated in the eighth stage. The interpretation was based on the AHP final synthesis principle, which ensures that the decision reflects both the hierarchical analysis and the importance of the parties involved. The analysis included ranking of investment priorities, checking of ranges (Min–Max) and assessment of the dispersion of views, which allows identifying the stability of the decision and potential sensitivity areas.

In this pilot demonstration phase of developed metodology, performed descriptive variance testing (Min/Max/AVER) and strict consistency control (CR ≤ 0,10) at the individual and aggregate levels, which is a basic quality requirement in the AHP framework (Duleba & Blahota, 2025). Given the purposeful, stratified key-informant design of the panel (n = 6), full sensitivity batteries were not implemented in this phase, as the main goal of the pilot was methodological demonstration and process viability testing.

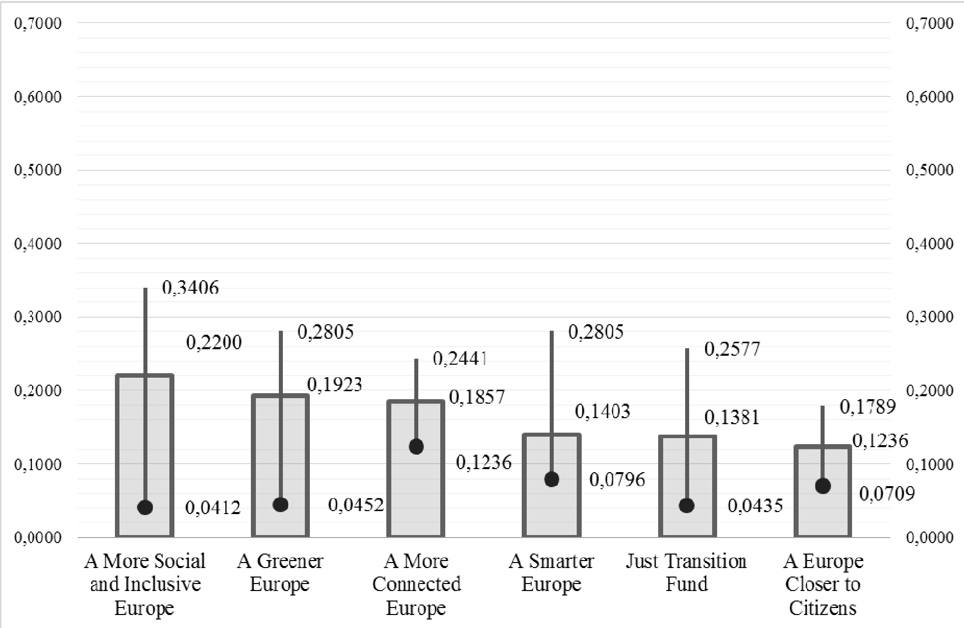
The developed methodology for assessing the utility of the measures is aligned with EU requirements, as it includes the basic principles of the requirements and can be used in investment assessment in the context of EU cohesion and other investment programmes at various levels. Stakeholder participation is set out in EU regulations, such as the EU Better Regulation Guidelines (European Commission, 2021), which emphasise the need to ensure stakeholder participation and evidence-based decision-making, which is ensured by the collection and processing of structured data.

Research Results

Figure 1 shows the final calculation results obtained by combining AHP with the importance of the parties involved. The figure shows the relative utility of EU cohesion investment directions, considering sustainability criteria and expert assessments. The highest values indicate investments identified in the study as the most strategically important, while the lowest ones indicate investments with a relatively lower priority. The results provide a basis for strategic recommendations, such as resource reallocation, to increase the utility of investments. The results serve as a tool to help decision-makers identify investment areas with the highest potential utility impact (see Figure 1). The scatter (minimum and maximum values) shown in the figure reflects the heterogeneity of expert views. Investment priorities with a high mean value and a narrow range, such as Social and Inclusive Europe (0,2200), indicate consensus among experts. In contrast, investment priorities with lower values and wide dispersion, such as Transition to Climate Neutrality (0,1381), indicate strategic ambiguity or a long-term perspective that is not yet fully integrated into decision-making. Such analysis is important because it identifies areas of high uncertainty where additional clarification or strengthening of participation is needed.

Figure 1

Range of investment priorities ratings, showing minimum, average and maximum values



Source: compiled by the authors.

The minimum value (min) denotes the lowest assessment found, which characterizes the minimum importance assigned to the priority, while the maximum value (max) indicates the highest assessment or the boundary where the priority is valued the most. The difference between these boundaries (range) and its ratio to the average assessment provide a quantitative description of the heterogeneity of assessments: the larger the range and the relative ratio, the more pronounced the variation between assessors; a smaller ratio signals a relatively even distribution of assessments.

The Table 4 summarises the overall ratings and experts recommended investment focus. The results highlight that priority should be given to investment priorities with the highest utility (Social and Inclusive Europe, Greener Europe), while lower priority areas require additional strategic analysis or resource optimisation.

Table 4

Overall rating and recommended investment focus

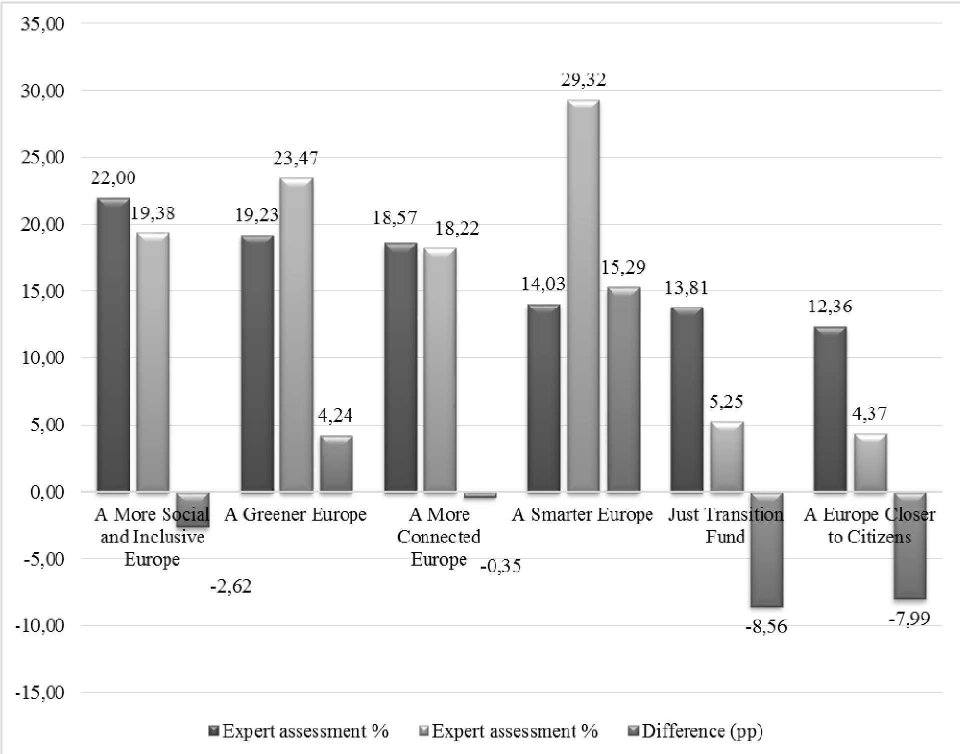
Alternative	Rating	Focus for investments	Conclusion on priority
A More Social and Inclusive Europe	0,2200	Equal opportunities and access to education, healthcare and the labour market, fair working conditions, social protection and inclusion	Highest priority – provides the highest utility across all criteria
A Greener Europe	0,1923	Climate neutrality, climate change adaptation and environmental protection	High priority – strong impact in social and governance dimensions; improvement in environmental and technological areas required
A More Connected Europe	0,1857	Safe, sustainable and accessible transport development	Medium priority – focuses on economics, medium impact in other criteria
A Smarter Europe	0,1403	Innovative and smart economic transformation – research and skills development, support for entrepreneurship, digitalisation and digital connections.	Low priority – lower overall impact; can complement other alternatives
Just Transition Fund	0,1381	Investments to mitigate social and environmental impacts in the most affected regions	Low priority – least impactful but balanced; can complement other alternatives
A Europe Closer to Citizens	0,1236	Sustainable and balanced regional development	Lowest priority – requires additional strategic analysis or resource improvement

Source: compiled by the authors.

Additionally, a comparison was made between the investment priorities set by experts and the actual distribution of EU Structural Funds in Latvia in the 2021-2027 planning period (see Fig. 2).

Figure 2

Experts' investment priorities and actual funding (percentages of the total EU Structural Funds allocation)



Source: compiled by the authors.

The analysis reveals significant discrepancies – for example, Smarter Europe is significantly overfunded (+15,29 pp), while the Just Transition Fund and A Europe Closer to Citizens are underfunded, which may jeopardize the achievement of climate and regional cohesion objectives. These results highlight the need to review the distribution of funding to reduce overfunding of investment priorities with high resource concentration and ensure greater support for underfunded priorities.

Discussion

Overall, the results of the research demonstrate the advantages of an integrated approach – combining AHP with stakeholder importance ensures a participatory role in priority setting, which promotes transparent, data-based decision-making.

The results of this study, based on an integrated approach, are in line with trends identified in recent studies on the evaluation of EU cohesion policy and Structural Funds. Evaluations often lack methodological transparency and comparability, which limits their usefulness in decision-making. The authors point out that a clearer definition of objectives and a data-based approach are needed for evaluation to become a real tool (Aguinis et al., 2020). The developed integrated methodology offers a structured hierarchical analysis that reduces the risk of subjectivity by integrating stakeholder weights with AHP calculations. A similar approach, combining multidimensional criteria with stakeholder involvement, is recommended by Šostar et al. (2025), analysing the impact of EU investments in local development, and concludes that the integration of stakeholders' perspectives significantly improves the relevance of projects to regional needs and increases public trust. Compared to other multi-level decision support models, AHP is still considered one of the most effective methods for determining investment priorities, due to its ability to ensure consistency and transparency (Ccatamayo-Barrios et.al., 2023). The developed methodology complements the literature by offering an integrated model that combines AHP with the theory of relative utility and Utilization-Focused Evaluation, ensuring quantitative comparison and practical applicability in policy planning. The integration of weights in the methodology provides a balanced view of the importance of different stakeholders, but it is not a mechanism that eliminates the risk of error. The allocation of weights reflects the proportions of power and interests but does not exclude subjectivity in expert assessments and does not compensate for data limitations. This aspect is essential, as the use of weights can create an illusion of objectivity if additional methodological control is not performed (Aguinis et al., 2020). The developed methodology takes these limitations into account by integrating the consistency coefficient ($CR \leq 0{,}10$) test, which is an internationally recognized tool in the application of AHP to ensure logical coherence in expert assessments (Saaty & Vargas, 2001). This mechanism ensures that the conclusions of the study are based on a structured and verified hierarchical analysis, and not only on the assignment of weights. The integration of weights in this context is an addition that improves the transparency and participation of decisions, not the only provider of accuracy. The integration of weights contributes to the legitimacy of policies and public trust, as the perspectives of the stakeholders are systematically included in the analysis, which is consistent with the principles of good governance (Šostar et al., 2025). Thus, the methodology is robust enough to mitigate risks and ensure practical applicability.

Limitations and generalizability. Given the limitations of cluster representation, the results should be interpreted with caution. We position this work as a methodological demonstration of an integrated AHP–stakeholder approach, rather than as generalizable assessments of Latvia's 2021–2027 cohesion investments.

Practical implementation

Based on the results of the research and the experience of piloting the methodology, recommendations are developed that serve as an analytical tool for harmonizing investment priorities. These recommendations are not to be considered an automatic basis for decision-making, but rather a structured support for discussions between stakeholders, promoting transparency and participation.

Several improvements are needed at the policy and investment level to ensure more efficient use of resources and sustainable development. First, the allocation of funding should be optimised by reviewing investment proportions to reduce excessive concentration of funds in certain alternatives and increase support for underfunded priorities, especially in the areas of climate neutrality and regional development. Second, a regular priority harmonisation mechanism based on the AHP methodology and calibration of stakeholder weights should be introduced, ensuring flexible adaptation to policy changes. Third, the integration of sensitivity analysis is essential to assess the stability of decisions and maintain a balanced coverage of sustainability dimensions in the long term. Engagement practices should also be strengthened, ensuring active participation of stakeholders not only in the planning but also in the implementation and monitoring stages. Methodological improvements include the development of a digital tool for AHP calculations that automatically controls the consistency coefficient (CR), generates hierarchies and visualises the results. A rotation mechanism for experts should be introduced to ensure continuous availability and diversity, as well as regular calibration of scales, for example in the middle of the planning phase or in the event of significant policy changes. Minimum quality criteria for engagement should be set to avoid formal participation and promote meaningful discussion. A publicly available platform with hierarchy models, weight distribution, CR indicators and decision justification, including in simplified language, would improve transparency. In addition, an automatic sensitivity analysis should be provided to demonstrate the robustness of results in the event of fluctuations in weights.

Empirical analysis illustrates how a structured methodology can help identify investment priorities with higher utility. The results of the analysis indicate that Social and Inclusive Europe and Greener Europe receive the highest relative ratings, while Transition to Climate Neutrality and A Europe Closer to Citizens are underfunded, which may pose risks to achieving sustainability goals. These data are not intended to be a normative allocation of investments, but rather an analytical basis for discussions that help policymakers assess the compliance of existing strategies with sustainability principles.

Conclusions

The study shows that the strategic priorities of the EU Structural Funds are not unambiguously comparable – each alternative offers a different contribution to the dimensions of sustainability, therefore, a utility assessment based on the stakeholder theory approach allows identifying the most utility priorities and revealing where additional attention, coordination or policy adjustment is needed. These conclusions confirm that the integration of stakeholder theory in the assessment processes provides analytical depth, promotes democratic, transparent and public interest-based investment management. Based on the analysis of expert assessments, it can be concluded that the utility assessment of the EU Structural Funds based on the stakeholder theory shows a multidimensional view of the importance of strategic priorities. The dispersion of assessments between alternatives and criteria reveals institutional diversity and different understandings of the components of sustainability – economy, social welfare, environment, technology and governance.

The dispersion of expert assessments reveals institutional diversity and the importance of applying stakeholder theory. This multidimensional approach provides an opportunity to identify both the most useful investment priorities and areas where additional discussion is needed, thus increasing the effectiveness of EU fund investments and public trust in the decision-making process.

Given the size of the panel, selection limitations, and the current state of data publication, the results should be seen as a methodological communication about an integrated AHP-stakeholder approach to the overall impact of Latvian cohesion policy investments in 2021 – 2027.

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