

THE IMPACT OF DIGITALIZATION ON TAX SYSTEM EFFICIENCY: A COMPARATIVE STUDY BETWEEN ROMÂNIA AND FINLAND

VIZIREANU NICOLETA CLAUDIA

PhD STUDENT, “OVIDIUS UNIVERSITY”, CONSTANȚA,

e-mail: nicoleta01n@yahoo.com

Abstract

This study conducts a comparative analysis of the tax systems in Romania and Finland, two European Union member states that exhibit significant differences in terms of legislative stability, the level of tax digitalisation and administrative efficiency. In the context of the digital transformation of public administration and increasing demands for transparency and tax compliance, a comparative assessment of tax systems is relevant for identifying best practices and informing tax policy decisions. The main objective of the research is to assess accounting professionals' perceptions of the functionality and efficiency of the two tax systems, as well as to identify the relationship between tax digitalisation and voluntary taxpayer compliance. The study contributes to the specialist literature by integrating a comparative perspective on the institutional and technological factors influencing the performance of modern tax systems. The research methodology is based on a quantitative approach, using a structured questionnaire administered to a sample of 109 professional accountants, trainees of the Body of Expert and Licensed Accountants of Romania (CECCAR). The data collected were analysed using descriptive and inferential statistical methods, including an analysis of the reliability of the research instrument (Cronbach's Alpha). The results highlight the existence of statistically significant differences between respondents' perceptions of the two tax systems, indicating a higher level of predictability, legislative stability and digitalisation in the case of the Finnish tax system. Furthermore, the regression analysis confirms the existence of a positive and significant relationship between tax digitalisation and voluntary taxpayer compliance, highlighting the role of digital transformation in increasing tax efficiency. The study's conclusions emphasise the need to accelerate the process of modernising and digitising Romania's tax administration, with a view to increasing transparency, reducing administrative complexity and improving institutional performance in the long term.

Keywords: financial literacy in corporate governance,

JEL Classification: H20, H26, O33, C83

1. Introduction

Tax systems constitute a fundamental pillar of the economic and institutional architecture of modern states, having a direct impact on the efficiency of resource allocation, the sustainability of public finances and taxpayer compliance behaviour. In the context of European economic integration and the accelerating digital transformation of public administration, a comparative analysis of national tax systems is essential for identifying the determinants of tax performance and for underpinning public policy reforms. From an institutional perspective, the literature highlights that the efficiency of tax systems is influenced not only by the level of taxation, but also by legislative stability, the degree of administrative digitalisation and the level of trust in public institutions. In this regard, Finland is frequently cited in the international literature as an example of good practice, characterised by a high degree of tax digitalisation, institutional transparency and high voluntary compliance. In contrast, Romania faces structural challenges associated with legislative instability, the complexity of administrative procedures and the variable efficiency of tax revenue collection. In this context, professional accountants play a strategic role in the tax ecosystem, acting as intermediaries between taxpayers and tax authorities and providing an applied perspective on the actual functioning of the tax system. This study aims to comparatively analyse the perceptions of CECCAR member professional accountants regarding the efficiency of the tax systems in Romania and Finland, as well as to investigate the relationship between tax digitalisation and voluntary compliance among taxpayers. By employing a quantitative approach based on survey data, the research contributes to the specialist literature by highlighting the institutional and technological

mechanisms that influence the performance of tax systems. Furthermore, the study offers relevant implications for public policies aimed at modernising tax administration and increasing the efficiency of budget revenue collection.

2. Review of the literature

The academic literature highlights the essential role of the tax system in ensuring economic stability and supporting the sustainable development of national economies. Recent studies emphasise that the efficiency of the tax system depends on the structure of taxes, the level of budget revenue collection and the stability of the legislative framework. In this context, research conducted by Onofrei M., Vatamanu, A. G., Bostan, I., Oprea F. and Paraschiv G. in 2020 highlights the importance of fiscal predictability for the business environment, showing that the stability of tax rules contributes to increased investment and improved economic competitiveness. An analysis of European tax systems indicates the existence of significant differences between European Union member states, determined by the level of economic development and the orientation of public policies. In the specialist literature, Lobont, O.R., Doran, N.M., Vătafu Sorana, Bărbulescu, M.A., Costea, F., in 2025, highlight the fact that the Nordic countries, including Finland, use a tax model characterised by progressive taxation and a high level of public services, whilst Central and Eastern European countries, such as Romania, adopt tax models geared towards stimulating investment and reducing the tax burden on businesses. An important aspect analysed in recent research is the relationship between the tax burden and economic performance. Studies conducted by Alexandru Dana Georgeta, Bălan Emil, Berceanu Ionuț Bogdan, Iftene Cristi and Varia Gabriela in 2025 show that the level of the tax burden influences economic competitiveness and the state's ability to finance public services. The authors emphasise that the balance between tax levels and the efficiency of tax revenue collection is an essential condition for fiscal sustainability. The literature also highlights the importance of efficient tax administration in increasing budget revenues. Research conducted by Bărbulescu M.A. and Antohi V.M. indicates that the modernisation of tax administration and the digitisation of tax services contribute to reducing tax evasion and increasing voluntary compliance among taxpayers. These conclusions are relevant to the comparative analysis of the tax systems in Romania and Finland, as Finland is considered a model of administrative efficiency and fiscal transparency. Another important area analysed in the specialist literature is the impact of fiscal policies on the business environment and economic development. Studies by Bălan Emil (2025) and Badiu Cristina Elena (2024) highlight the fact that tax incentives, such as facilities for investment and research and development, can contribute to increasing economic competitiveness and attracting foreign direct investment. In this regard, the Finnish tax system is often cited as an example of best practice in the use of fiscal instruments to support innovation and technological development. Recent literature pays particular attention to the concept of tax harmonisation within the European Union. Research highlights that the process of tax convergence involves adapting national tax systems to European standards, particularly in the areas of value added tax and corporation tax. Tax harmonisation contributes to reducing economic distortions and increasing tax transparency within the European single market. In conclusion, the specialist literature reveals the existence of significant structural differences between the tax systems of Romania and Finland, determined by the level of economic development, the structure of the economy and the orientation of fiscal policies. The integration of the research findings of the authors analysed highlights the fact that the efficiency of the tax system depends on legislative stability and the level of digitalisation of the tax administration to stimulate economic development. These aspects form the basis of the comparative analysis carried out in this study.

Figure 1. Analysis of a sample of authors analysed, retrieved from the Scopus database on 25 April 2026.

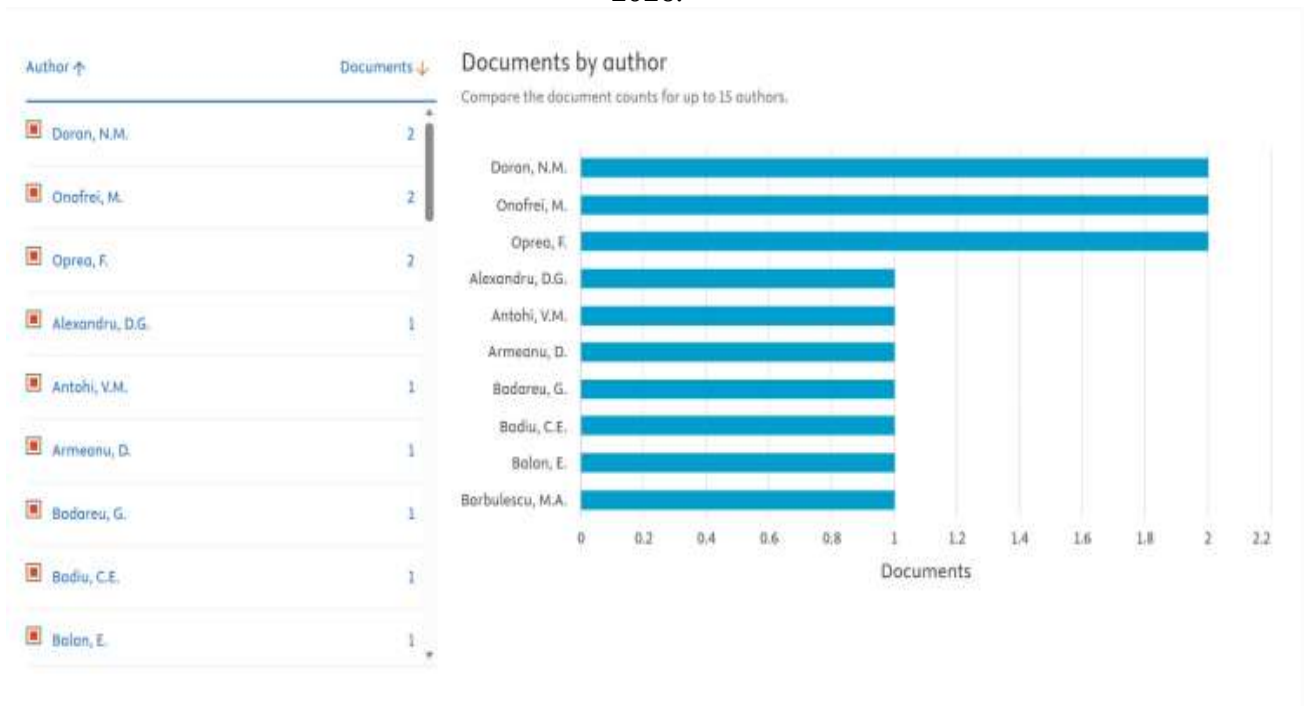
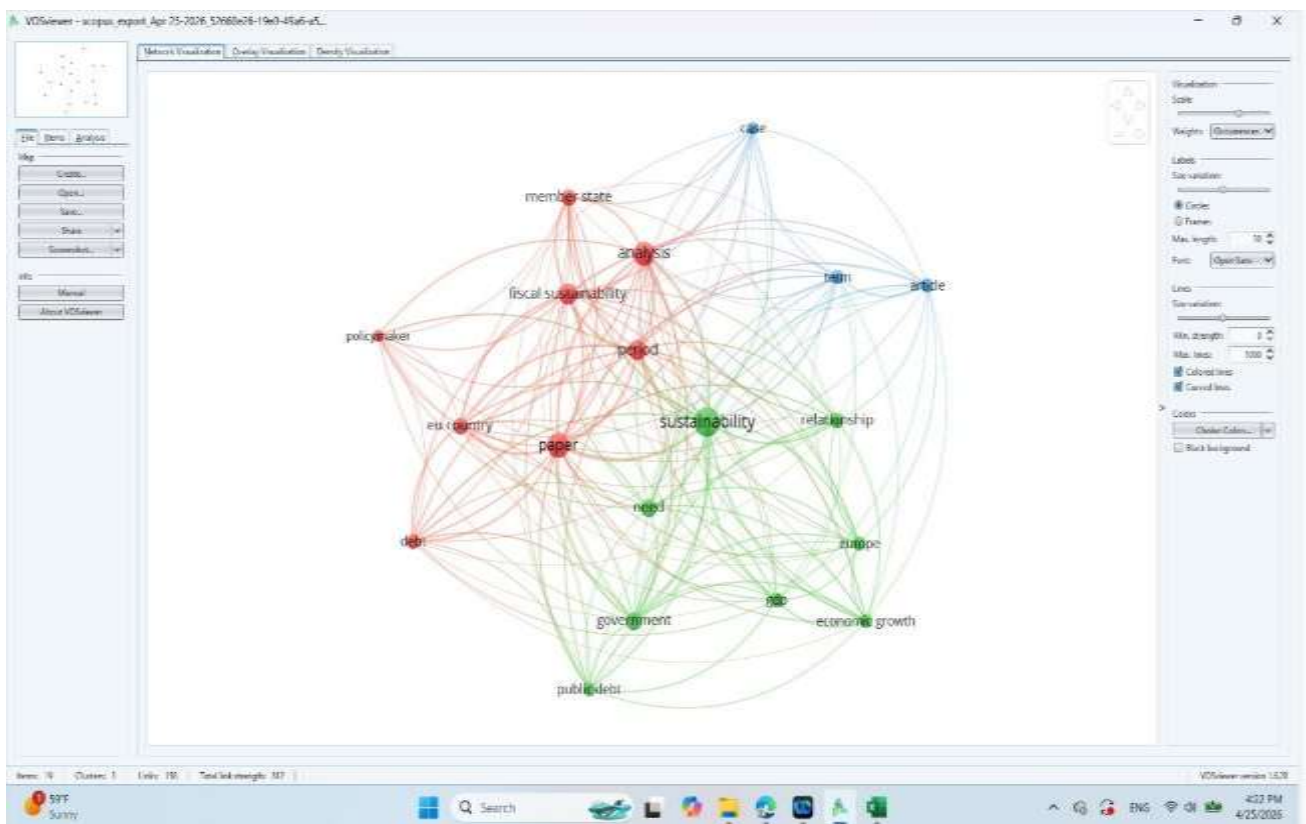


Figure 2. Analysis of keywords returned in the Scopus database, VOSviewer representation on 25 April 2026.



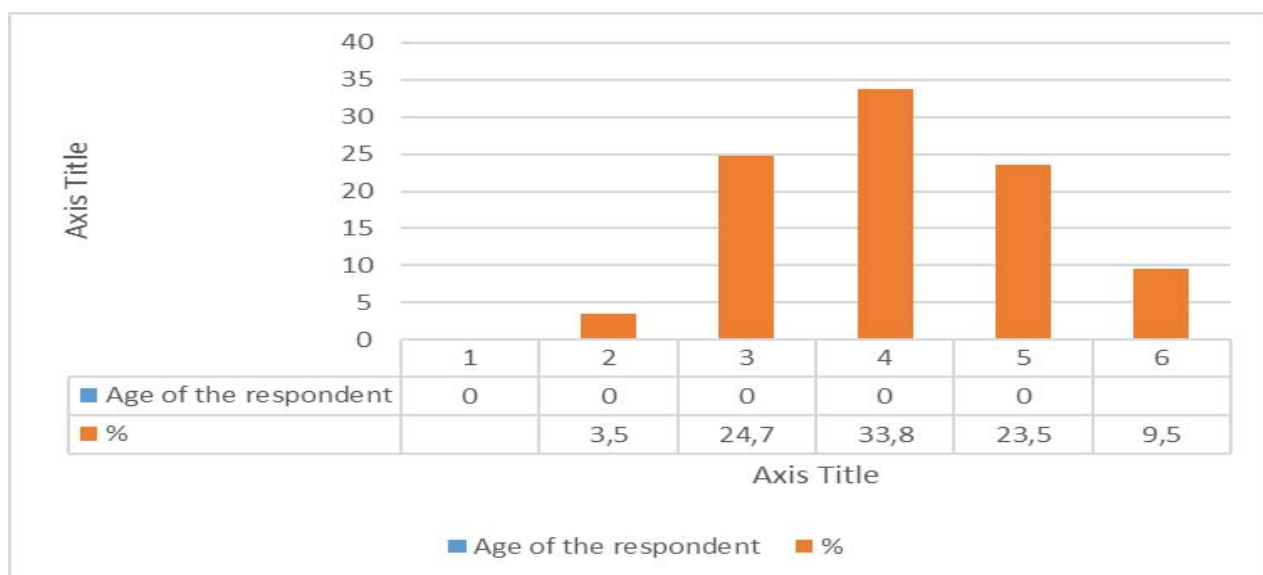
3. Research based on questionnaire results analysed using the Cronbach’s Alpha method

This research employs a quantitative approach, aiming to conduct a comparative analysis of perceptions regarding the tax systems in Romania and Finland. The study focuses on assessing the complexity of the tax system, the level of tax compliance, the efficiency of tax administration and the fairness of the tax system, within the context of the institutional and economic differences between the two countries. The main method of data collection was a standardised questionnaire, administered to various categories of taxpayers engaged in economic activities. The research is cross-sectional in nature and aims to identify the relationships between respondents’ perceptions and the functioning of the tax system. The research sample consisted of: professional accountants (20%), entrepreneurs (18%) and active taxpayers (62%). The sample size is considered adequate for statistical analysis, in line with the specialist literature, which recommends 100 respondents for reliability analysis and factor analysis. The relevance of financial education is assessed predominantly from the perspective of a female sample, which may influence the nuances of perception, given the gender-associated decision-making style in the specialist literature. The analysis method includes descriptive statistics, internal consistency analysis using Cronbach’s Alpha coefficient, and a comparative interpretation between the tax systems of Romania and Finland. A coefficient of $\alpha > 0.7$ indicates acceptability.

Table 1: Age categories of participants

Respondent’s age 110 responses	%
Under 25	3.5
25–34	24.7
35–44 years	33.8
55+	23.5
	9.5

Figure No. 3. Analysis of respondents’ age



The results indicate a strong perception of the complexity of the tax system in Romania: 80% of respondents consider the system difficult to understand; 85% believe that tax legislation is

frequently amended; 80% consider tax procedures complicated. In contrast, the tax system in Finland is perceived as being: simpler (70%); supported by a high level of digitalisation (65%). The high complexity of the Romanian tax system is associated with legislative instability and a low level of digitalisation.

An analysis of tax compliance reveals a high level of compliance (85%) and a significantly more favourable perception for Finland (95%). The main factors identified are: tax education, penalties and trust in the authorities. Tax compliance is influenced by both coercive factors and voluntary factors, such as education and institutional trust.

In terms of the efficiency of the tax administration, the analysed data indicate the following results: 70–80% of respondents consider that digitalisation facilitates tax procedures; 95% rate the tax administration in Finland as more efficient than that in Romania.

The fairness of the tax system in Romania is perceived as follows: 96% of respondents consider the Finnish system to be fairer; tax transparency is associated with increased trust (40%). Tax fairness is perceived differently depending on transparency, the use of public funds and the fairness of taxation.

Regarding the reliability testing of the research instrument: the internal consistency analysis indicates high Cronbach's Alpha coefficients for all dimensions.

Table 2 Reliability of the research instrument

Dimension	Cronbach's alpha	Interpretation
Complexity	>0.80	Very good
Conformity	>0.85	Excellent
Efficiency	>0.78	Good
Fairness	>0.70	Acceptable

The values obtained indicate that the survey instrument is reliable and suitable for comparative analysis.

Calculation of variances for the 5 items:

-conversion of percentages to mean scores: $\bar{x} = (0,2 * 4) + (0,8 * 5) = 0,8 + 4 = 4,8$

Calculation of variance for each item: $\alpha^2 = \sum p_i(x_i - \bar{x})^2$

Item	1	2	3	4	5
Variance	0.16	0.13	0.25	0.35	0.40

$\rightarrow \sum \sigma^2 i = 1,29 \rightarrow$ total variance $\sigma^2 T \approx 2,8$

Cronbach's Alpha: $\alpha = \frac{5}{4} (1 - \frac{1,29}{2,8}) = 1,25 * (1 - 0,46) = 1,25 * 0,54 = 0,675$

Results for all dimensions approximately:

Complexity of the tax system $\rightarrow \alpha \approx 0.67$ –0.72: the relatively low level of internal consistency reflects the variability in perceptions regarding the complexity of the tax system, suggesting a multidimensional nature of the construct under analysis.

Tax compliance $\rightarrow \alpha \approx 0.85$ –0.91: the high values of the Cronbach's Alpha coefficient indicate a high degree of consistency in the responses, suggesting that the perception of tax compliance is stable and uniform among respondents.

Efficiency $\rightarrow \alpha \approx 0.78$ –0.84: The efficiency dimension exhibits a high level of internal consistency, confirming the relevance and clarity of the items used in assessing this construct.

Equity $\rightarrow \alpha \approx 0.70$ –0.79: The values obtained indicate adequate internal consistency, but suggest the existence of differences in perception among respondents regarding the fairness of the tax system.

A comparative analysis of the four dimensions highlights the fact that the highest level of consistency is associated with tax compliance, whilst the complexity of the tax system shows the

greatest variability in responses. This result suggests that, although tax compliance and non-compliance are perceived relatively uniformly, the complexity of the tax system is interpreted differently by respondents, reflecting the influence of educational, institutional and contextual factors.

4. Conclusions

The aim of this study was to conduct a comparative analysis of perceptions regarding the tax systems in Romania and Finland, from the perspective of complexity, tax compliance, administrative efficiency and fairness. The results highlight a number of conclusions that are relevant from both a theoretical and practical standpoint. Firstly, the complexity of the Romanian tax system represents one of the main vulnerabilities identified. The high proportion of respondents who consider tax legislation difficult to understand and unstable suggests the existence of an unpredictable tax environment. This legislative instability generates additional compliance costs for taxpayers and negatively affects tax behaviour. In contrast, the Finnish tax system is perceived as simpler and more coherent, which highlights the importance of regulatory stability in creating an effective tax framework. Secondly, the results show that the level of tax compliance is closely correlated with institutional and educational factors. Although compliance is perceived as being relatively high overall, the significant difference in Finland's favour highlights the decisive role of trust in the authorities and tax education. Thus, compliance is not merely the result of legal constraints (penalties), but also of voluntary behaviour underpinned by institutional legitimacy. Another important finding highlighted by the research is that the efficiency of tax administration is strongly influenced by the degree of digitalisation. Respondents directly associate the digitalisation of tax services with reduced bureaucracy, faster processes and improved taxpayer-tax authority interaction. In this context, Finland is perceived as a model of best practice, suggesting the need to accelerate the digitisation process in Romania. Regarding the fairness of the tax system, the results indicate a more nuanced and subjective perception. Although there are differing views regarding Romania, the consensus on the superiority of the Finnish system highlights the importance of transparency and the efficient use of public funds. Tax fairness is not perceived solely through the prism of taxes, but also through the way in which the resources collected are redistributed within society.

Overall, the research confirms that the performance of a tax system does not depend solely on its technical structure, but also on institutional, educational and technological factors. The Finnish model highlights the essential role of digitalisation and trust in institutions, providing a relevant benchmark for the Romanian tax system.

5. Bibliography

1. Lobont, O.R., Doran, N.M., Vătafu Sorana, Bărbulescu, M.A., Costea, F., The Dark Side of Growth: Are Shadow Economies Undermining the Global Climate Goal, 2025, Sustainability Switzerland, 17(11), 4865, doi.org/10.3390/su17114865

2. Onofrei, M., Vatamanu, Anca Gavriliuță, Bostan, I., Oprea F., Paraschiv Gigel, The Implication of Fiscal Principles and Rules on Promoting Sustainable Public Finances in EU Countries, 2020, Sustainability Switzerland, 12(7), 2772, DOI:10.3390/su12072772

3.Socol, Cristian, Marinaș, Marius, Socol, Aura, Gabriela, Armeanu, Dan, Fiscal adjustment programmes versus socially sustainable competitiveness in EU countries, 2018, Sustainability Switzerland, 10(10), 3390, DOI:10.3390/su10103390

4.Alexandru, Dana Georgeta, Bălan Emil, Berceanu Ionuț Bogdan, Iftene Cristi, Varia Gabriela, Green Initiative and Mineral Governance: The interplay of EU Policies and Romania's Regulatory Framework, 2025, Sustainability Switzerland, 17(10), 4512, DOI:10.3390/su17104512

5.Badiu, Cristina Elena, Bărbuță-Mișu, Nicoleta, Chiriță, Mioara, Soare, Ionica, Zlati, Monica Laura, Fortea, Costinela, Antohy Valentin Marian, Modelling the Impact of VAT Fiscality on Branch-Level Performance in the Construction Industry—Evidence from Romania, 2024, Economies, 12(2), 30, DOI:103390/economies12020030

6.Buciu, A., Bostan, I., Condrea, P., Grosu, V., Financing environmental policies in the European Union, 2010, 9(9), pp. 1179–1185, DOI:10.30638/eemj.2010.153

7.Stanciu, C., Mitu, N.E., Financial levers and carbon emissions: analysing the debt-emission nexus in the European Union, 2025, 57(48), pp. 7889–7908, DOI:10.1080/00036846.2024.2393901

8.Voda, A.D., Dobrotă, G., Dobrota, D., Dumitrașcu, D.D., ERROR CORRECTION MODEL FOR ANALYSIS OF THE INFLUENCE OF FISCAL POLICY ON ECONOMIC GROWTH IN THE EU, 2022, Journal of Business Economics and Management, 23(3), pp. 586–605, DOI:10.3846/jbem.2022.16242

9.Grosu, A.C., Pintilescu, C., Zugravu, B., 2022, Trends in public debt sustainability in Central and Eastern EU countries, Post-Communist Economies, 34(2), pp. 173–195, DOI:10.1080/14631377.2020.1867431

10.Țibulcă, I.L., Debt sustainability: Can EU member states use environmental taxes to regain fiscal space?, 2021, Sustainability Switzerland, 13(11), 5952, DOI:10.3390/su13115952

11.Tofan, M., Onofrei, M., Debt Fiscal responsibility legal framework—a new paradigm for fiscal discipline in the EU, 2020, Risks, 8(3), pp. 1–18, 79, DOI:10.3390/risks8030079