

DIGITAL PLATFORMS FOR SOCIAL SERVICES ADMINISTRATION IN THE CONTEXT OF SUSTAINABLE COMMUNITY DEVELOPMENT

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ABSTRACT

The relevance of using digital platforms for social services administration is rapidly growing in the context of the digitalization of society and the need to ensure sustainable community development. The aim of the article was to analyse the effectiveness of using digital platforms for managing social services in the context of sustainable community development in Europe. The research employed the following methods: structural equation modelling (SEM) to analyse the relationships between platform performance indicators, the diffusion of innovations theory to assess the speed of their implementation, as well as comparative and content analysis to arrange data. The t-test was used to check statistical significance, the platform productivity function, as well as correlation analysis to identify relationships between the Social Progress Index (SPI) and the Sustainable Development Goals (SDGs). The results of the study show that the integration of digital platforms contributes to increasing the accessibility and efficiency of social services. A trend towards reducing the administrative burden and accelerating the achievement of sustainable development goals is identified. The article examines technical limitations and uneven access to digital technologies in European regions. The proposed ways of improvement include the development of national digital strategies, the integration of modern blockchain-based tools. The practical significance of the study is the provided recommendations for improving digital mechanisms of social governance based on the experience of European countries. Further research should be aimed at studying global practices and developing universal solutions for the digitalization of social services.

Keywords: *Sustainable Development, Territorial Communities, Sustainable Development Goals, Public Administration, Information Society, Digitalization.*

1. INTRODUCTION

Sustainable community development is one of the main strategies of modern socio-economic management aimed at ensuring a balance between environmental, economic and social interests. The main sustainable development goal is to create conditions under which all population groups have equal access to resources, services and opportunities, ensuring their inclusion in public life. In Europe, the

sustainable community development is based on the institutional support of the European Union (EU), in particular through the European Green Deal programme, which is aimed at combating climate change and developing socially responsible governance mechanisms.

Digitalization is becoming a key factor in the transformation of public administration and the provision of social services, ensuring quick access to resources and minimizing bureaucratic barriers. In

2021, the European Commission adopted the 2030 Digital Compass strategy. It aims to ensure full digital coverage of services by the end of the decade. In 2022, Germany integrated digital services into the administrative sphere through the Onlinezugangsgesetz (OZG), providing access to over 575 government services.

European countries demonstrate high results in implementing sustainable development, as reflected in the 2023 SDG Index ranking. Finland, Sweden, and Denmark lead the list with scores of 80.64, 80.57 and 80.04, respectively. The high scores are explained by their focus on environmental initiatives, innovations in social policy and integration of digital platforms to ensure access to social services. Finland effectively uses platforms to monitor CO₂ emissions and support clean transport. Austria (77.71) and Norway (77.00) demonstrate success due to the implementation of digital systems for healthcare and social insurance. The relatively lower results of Germany (75.43) and the Czech Republic (74.36) can be explained by uneven access to digital services in rural areas. The data indicate the need for further modernization and integration of digital tools to ensure sustainable development, as detailed in Table 1.

The practice of integrating public administration services with the provision of social services is actively developing in Europe, ensuring transparency and accessibility. The effectiveness of such initiatives should be assessed to analyse the relationship between social progress and sustainable development. In our study, the correlation analysis was used to study the interdependence between the SPI and the SDGs in European countries. This created the basis for assessing the extent to which digital platforms, such as e-Estonia in Estonia, the Online Access Act (OZG) in Germany, and Digital School Services in Sweden, contribute to the integration of communities and increased efficiency in the provision of social services.

Digital platforms are becoming a fundamental component of modern governance, particularly in the administration of social services aimed at supporting sustainable community development. The global practice of digital transformation in public services demonstrates a diversity of regional approaches, shaped by local socio-economic, technological, and institutional conditions. While countries such as Estonia and Singapore have implemented highly integrated national platforms—e-Estonia and Smart Nation, respectively—many other states continue to face challenges related to digital infrastructure, data protection, and social equity. The sustainable

development of communities increasingly depends not only on environmental and economic indicators but also on the efficiency, inclusiveness, and transparency of digital public service delivery. The scope of this study focuses on seven European countries with advanced digital ecosystems, evaluating their platforms from the perspective of service accessibility, automation level, user reach, and impact on sustainable development indicators. The key assumption is that a higher level of digital platform integration leads to more efficient social service provision. However, the research is limited by its concentration on countries with high digitalization rates and the use of secondary data sources.

The aim of the study is to assess the effectiveness of digital platforms for social services administration within the framework of sustainable community development in Europe. The novelty of the research lies in combining structural equation modelling (SEM) with benchmarking, SPI/SDG correlation, and comparative performance analysis of key digital platforms across countries. The study hypothesizes that there is a statistically significant positive correlation between the digital maturity of social service platforms and national performance on social and sustainable development indices. The research seeks to answer the question: To what extent do digital platforms enhance the effectiveness of social services in achieving sustainable development goals? Specific objectives include: (1) determine the role of digital platforms in promoting sustainable communities; (2) analyse the strengths and weaknesses of implementation strategies in leading European countries; (3) evaluate the impact of digitalization on the accessibility and quality of social services; and (4) develop evidence-based recommendations for enhancing digital social governance in the European context.

2. LITERATURE REVIEW

Recent studies increasingly emphasize the role of digital platforms in promoting social inclusion, equality, and sustainable governance. Afzal et al. [1] highlight the importance of green finance in achieving SDGs in Europe, though their focus on financial instruments leaves the social dimension underexplored. Alfrević et al. [2] offer a bibliometric overview of sustainability education in South-Eastern Europe, identifying key research trends, yet the regional scope limits broader applicability. Bartiromo [3] examines the socio-economic impact of the COVID-19 crisis on sustainable development but overlooks the influence

of digitalization. Bendebka et al. [4] propose an original framework for assessing digital services through a Maqasid approach, although the analysis remains narrow in thematic and geographic focus. The ranking of countries by sustainable development and their indices are given in Table 1.

Table 1: European Countries Ranking by SDG Index, 2023

Rank	Country	Score
1	Finland	80.64
2	Sweden	80.57
3	Denmark	80.04
4	Austria	77.71
5	Norway	77.00
6	Germany	75.43
7	Czechia	74.36
8	Slovenia	73.74
9	Iceland	73.71
10	Estonia	73.03

Source: developed on the basis of SPI [5], SDG [6]

Migration processes in Europe have had a significant impact on the social policies of countries

in recent years. To adapt to new challenges, governments are developing programmes aimed at integrating migrants and reducing social tension. The European Union has introduced the Asylum, Migration and Integration Fund (AMIF) initiative, which finances programmes to promote the integration of migrants into communities. In Sweden, digital platforms are actively used for language learning, employment, and social adaptation of newcomers. Germany has the Integration Courses programme, which combines language training courses with orientation in the local culture.

European countries demonstrate high results in the development of the social system, which is confirmed by the 2023 SPI data in Figure 1. Denmark (90.38), Norway (90.32) and Finland (89.96) occupy the leading positions. In 2022–2023, a number of regulatory and legal documents were adopted that contributed to this progress. The European Commission has adopted the 2030 Digital Compass, which is a framework for the digital transformation of social services in member states. The strategy aims to ensure access to high-speed internet, develop digital services and increase the level of citizens' digital literacy.

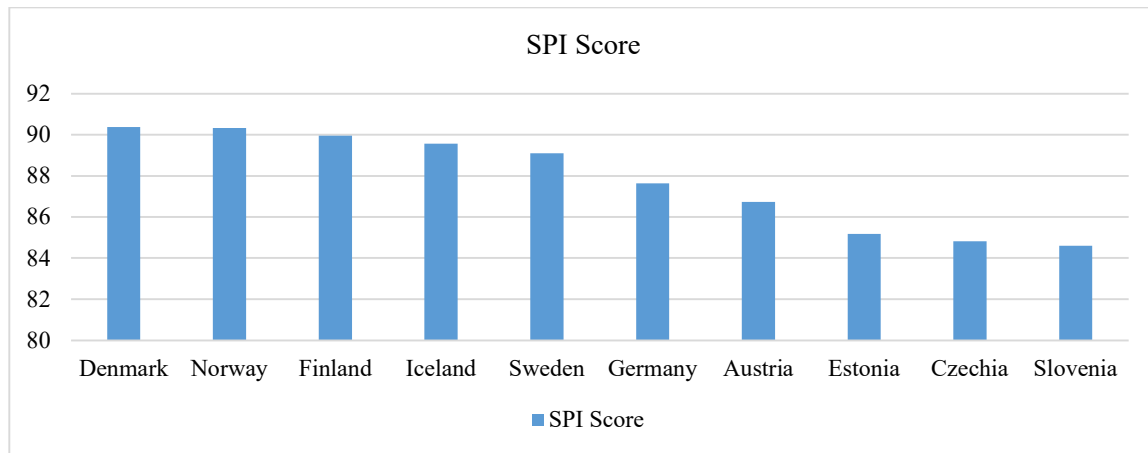


Figure 1: European Countries Ranking by the SPI, 2023

Beckmann and Dissing [6] examined EU enlargement and sustainable rural development in Central and Eastern Europe. The authors distinguished environmental and social aspects, but the economic dimension remained poorly studied. Ekström and Hvenmark [7] studied the quality of social services in women's shelters, emphasizing the importance of raising standards of work. This issue is relevant, but the article is reduced to a single country case. Contemporary research on digitalization in the field of social services reflects a variety of conceptual and regional perspectives,

though many studies demonstrate limited empirical grounding or thematic fragmentation. Elsen [8] considers social services within the framework of the social economy, outlining the importance of value-based models for social support provision; however, the study lacks empirical analysis and practical implementation scenarios. Similarly, Klenk and Reiter [9] examine social services as part of critical infrastructure under the social investment approach, but their work remains predominantly theoretical, offering little insight into digital mechanisms or platforms.

The intersection of sustainability and digital transformation is addressed by Vögele et al. [10], who explore the environmental effects of coal phase-out in Europe within the SDG framework. Despite its relevance, the study underrepresents the role of social services in sustainable development. Dimas et al. [11] focus on the application of small data in social services, underlining the need for innovation and responsiveness, though scalability and system-level integration are not addressed. Rantanen et al. [12] provide insight into attitudes towards digital social and health services among prisoners in Finland, illustrating potential for inclusive digitalization, albeit within a narrowly defined user group.

Mu et al. [13] describe digital transformation trends in China's social services sector, offering a valuable comparative perspective, but the findings are context-specific and lack direct relevance to European systems. Kainiemi et al. [14] investigate digital service benefits among elderly users in Finland, confirming positive outcomes of digitalization, though regional specificity limits generalizability. Saar-Heiman et al. [15] examine poverty-aware practices in public social work, emphasizing structural reform but omitting the integration of digital tools. Jacobson et al. [16] assess awareness among Canadian social workers regarding domestic trafficking, highlighting practical gaps in knowledge, yet their study does not expand to the global or systemic level. Tyczewska et al. [17] focus on biotechnology's role in food security as part of sustainable development, offering important insights but lacking connection to social administration processes.

Semenets-Orlova et al. [18] explore value-oriented, people-centered public administration, identifying digital tools as potential enhancers of social policy, although the scope remains limited to administrative contexts. Lysenko et al. [19] address international cybersecurity standards vital for platform integrity, but the impact on social service accessibility is not fully developed. Fleming et al. [20] document cross-sector collaboration between health and social services in the U.S., stressing coordination and system integration, though the analysis is confined to local conditions. Resce and Schiltz [21] provide a macroeconomic evaluation of sustainability in Europe using a multi-criteria approach; however, social service mechanisms are not sufficiently covered. Olasehinde-Williams et al. [22] analyze environmental policies and green trade as levers for sustainability but omit social infrastructure aspects.

Tarasevych et al. [23] investigate resilience in Eastern European cities, reflecting regional engagement with sustainable development, though the findings lack broad transferability due to the specific urban focus. This body of literature reveals a growing understanding of the importance of digital platforms in public service transformation. However, it also demonstrates fragmented coverage, with few studies addressing the combined role of social services, digital innovation, and sustainable development in an integrated analytical model. The current study aims to bridge this gap by applying a cross-national comparative framework and quantitative modelling to evaluate the efficiency and societal impact of digital platforms in the European context.

So, the academic literature demonstrates a significant diversity of approaches to the study of digitalization and sustainable development, in particular the impact of digital platforms on social services. The analysis shows that key issues relate to the integration of innovative technologies, ensuring accessibility and overcoming regional constraints. The collected sources create a background for further research into the effectiveness of digital mechanisms in the context of sustainable community development.

3. MATERIALS AND METHODS

3.1. Research Design

The research was structured in four sequential stages, designed to ensure methodological transparency, replicability, and analytical depth. In the first stage, a targeted sampling strategy was applied to select digital platforms from seven European countries, based on predefined inclusion criteria (see Section 3.2). The second stage focused on data collection, involving both quantitative and qualitative sources: regulatory frameworks, digital strategy documents, and statistical indicators, primarily the Social Progress Index (SPI) and Sustainable Development Goals (SDG) indices. In the third stage, a combination of statistical methods—including structural equation modelling (SEM), correlation analysis, and benchmarking—was used to examine the relationship between platform effectiveness and sustainable development outcomes. The fourth stage involved synthesis and interpretation of results to validate or reject the research hypothesis, and formulate actionable recommendations. This structured design enables the research to be replicated in other regional or national contexts. The methodology allows for the inclusion

of new platforms and variables while maintaining comparability through standardized metrics and analytical models.

3.2. Sampling

The study sample comprises seven digital platforms for social services administration across selected European countries: Kela eServices (Finland), Försäkringskassan (Sweden), MitID (Denmark), Altinn (Norway), ELSTER (Germany), X-Road (Estonia), and eUprava (Slovenia). The platforms were selected using three main criteria: (1) the degree of integration into national social service systems; (2) technical performance, including automation rate and processing time; (3) availability and reliability of official data. These platforms represent high-performing digital ecosystems within the European context and provide a diverse yet coherent basis for comparative analysis. However, the sample is limited to technologically advanced countries, which may restrict generalization to regions with lower digital maturity. This limitation is acknowledged and addressed through contextual interpretation of results and by outlining pathways for broader application of the findings in future studies.

3.3. Methods

The study employed the following methods: SEM to identify relationships between indicators of the effectiveness of digital platforms; the diffusion of innovations theory (Everett Rogers), which was used to analyse the implementation of digital platforms in different countries and determine the speed of their adaptation; comparative analysis to compare the effectiveness of platforms in different regions; content analysis to arrange available data from academic sources on social and sustainable initiatives; benchmarking to identify key characteristics of the most successful platforms and compare them with less effective counterparts. Statistical methods, such as Student's t-test, were used to test the statistical significance of differences between platforms; assessment of the penetration of digital services made it possible to determine the share of the population using online social services. The platform's productivity function assessed the effectiveness of process automation, and correlation analysis was used to determine the relationship between the SPI and the SDG Index.

The formula 1 for the t-test:

$$t = r \sqrt{\frac{n-2}{1-r^2}} = 0.675 \sqrt{\frac{10-2}{1-0.675^2}} = 2.59 \quad (1)$$

where:

- r – correlation coefficient,
- n – number of observations.

The significance level (p) is determined through the t-distribution (Formula 2):

$$p = 2(1 - F_t(|t|, n - 2)) = 2(1 - 0.9839) = 0.032 \quad (2)$$

where F_t – Student's cumulative distribution function.

The formula 3 used to estimate the penetration of digital services is:

$$P = \frac{N_{users}}{N_{total}} \times (1 + \frac{R_{digital}}{100}) \quad (3)$$

where:

- P – percentage of users who switched to online services,
- N_{users} – number of platform users,
- N_{total} – total population,
- $R_{digital}$ – level of digital literacy (in percent).

The reduction in administrative costs was assessed by using a modified formula for Return on Investment (ROI) in digitalization, which takes into account the number of transactions before and after the platform implementation (Formula 4):

$$R = \frac{C_{before} - C_{after}}{C_{before}} \times \frac{1}{T_{transactions}} \quad (4)$$

- R – cost reduction,
- C_{before} and C_{after} – administrative costs before and after implementation,
- $T_{transactions}$ – number of transactions on the platform.

The application processing time was estimated through the platform's performance function, which takes into account the level of automation and the average application processing time before implementation (Formula 5):

$$T = T_{before} \times (1 - \frac{A}{100}) \quad (5)$$

- T – processing time after implementation,
- T_{before} – processing time before implementation,
- A – platform automation level.

Content analysis and benchmarking of the outlined platforms were applied to assess their

impact on the accessibility, quality, and efficiency of social services provision.

3.4. Tools

Microsoft Excel was the main tool for data processing and analysis, which was used to arrange information, conduct multifactor analysis, and visualize results. Official reports and statistical databases of the European Commission and data from Eurostat were used to collect data. Relevant sources ensured the accuracy and representativeness of the information for analysis. The reports available through the platforms of the German and Swedish governments were used for the content analysis of the programmes for digitalization of social services in order to assess the impact of policies on sustainable development. The integration of the outlined tools ensured the completeness and reliability of the study.

4. RESULTS

Based on SEM, it was found that the implementation of digital platforms significantly contributes to the sustainable community development, automating processes at the level of 80–95% and reducing the processing time of applications to 5–7 days. This allows reducing administrative costs by 15–20% and increasing the efficiency of social services administration. For example, in the countries of Northern Europe, 85% of users receive social services online, which provides a high level of accessibility and convenience.

The diffusion of innovations theory (Everett Rogers) has shown that countries with developed digital infrastructure demonstrate the highest speed of implementation of such solutions, providing significant benefits for communities. A comparative analysis of the platforms identified leaders in the implementation of digital solutions. The Estonian platform X-Road is one of the most effective examples, providing 95% automation, processing applications in an average of 5 days and supporting over 1.3 billion transactions annually. In Finland, the Kela eServices platform integrates a wide range of

social services, serving 4.5 million users and reducing application processing time to 6 days.

The MitID system in Denmark covers 90% of the population, automating 80% of the processes, making it one of the most user-friendly platforms. Such platforms demonstrate how modern technologies can improve the accessibility of social services and reduce the burden on administrative resources. Benchmarking identified key differences between the platforms and their impact on the efficiency of social services administration, the results of which are presented in Table 3. For example, in Germany, the ELSTER platform provides 87% automation and processes applications for over 6.2 million users, but faces accessibility issues in rural areas, indicating the need for further improvement.

Similarly, the Altinn platforms in Norway and the Försäkringskassan in Sweden also demonstrate high levels of automation and cost reduction, but have different levels of population coverage.

The results of the correlation analysis determine to what extent the implementation of digital platforms affects the harmonization of social and sustainable initiatives, as well as assess the statistical significance of the relationship between the SPI and the SDG in Table 2.

Table 2: Statistical results of the correlation analysis between SPI and SDG

Metric	Value
Number of observations (n)	10
Correlation coefficient (r)	0.675
t-statistic (t)	2.59
Significance level (p)	0.032

The results of the calculations confirm that the correlation coefficient $r = 0.675$ is statistically significant, $p = 0.032$. A moderate positive relationship between SPI and SDG was found on the basis of the summary and grouping, which is important for the further shaping of an integrated sustainable development policy. The results of the benchmarking of platforms in the world and their characteristics are given in Table 3.

Table 3: Key Digital Platforms for Social Services Administration in the Context of Sustainable Community Development

Country	Digital Platform	Platform Characteristics	Technical Parameters	Number of Users/Transactions
Finland	Kela eServices	Online benefits management	Reduction of application processing time to 6 days	4.5 million users

Sweden	Försäkringskassan	Social insurance benefits	Processes are automated by 85%, applications are processed in up to 7 days	7 million users
Denmark	MitID	Identification and registration	80% automation, coverage of 90% of the population	5.8 million users
Norway	Altinn	Data processing and social benefits	Reduction of admin. costs by 20%, processing in up to 6.5 days	4.3 million transactions annually
Germany	ELSTER	Tax returns and social benefits	Processes are automated by 87%, application processing in up to 9 days	6.2 million users
Estonia	X-Road	Full data integration	95% automation, application processing in 5 days	1.3 billion transactions annually
Slovenia	eUprava	Social and health services	Application processing in 8 days, 83% automation	2.7 million users

Source: developed by the authors

The percentage of users who switched to online platforms was calculated using a forecasting model based on demographic data and the level of digital literacy of the population.

Based on the performed calculations, the results of which are presented in Figure 2, the effectiveness of digital platforms in terms of both the share of users receiving services online and the

reduction of administrative costs is illustrated. The leaders are X-Road with 95% of users online and Altinn with a 20% reduction in costs. The Kela eServices and Försäkringskassan platforms also demonstrate significant achievements in reducing the burden on administrative resources. More details on their effectiveness indicators are provided in Figure 2.

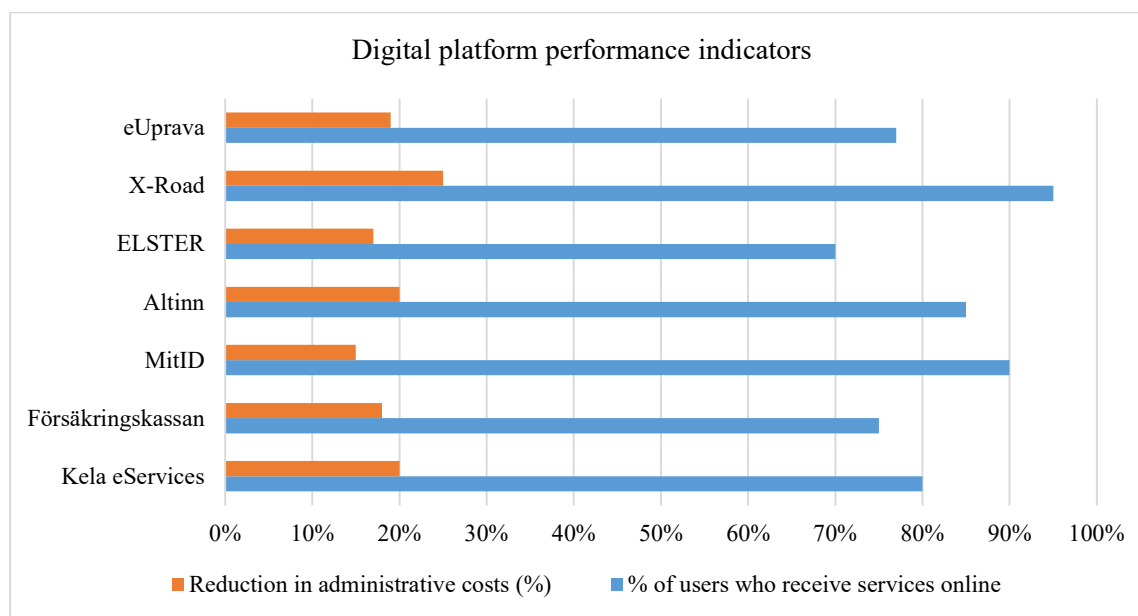


Figure 2: Digital platform performance indicators

Source: developed by the authors

Digital platforms have significantly reduced the processing time of applications and increased the efficiency of social services administration. For example, Kela eServices reduced the processing time from 10 to 6 days, and X-Road demonstrated the fastest result of 5 days due to a high level of

automation. At the same time, such platforms as Försäkringskassan and ELSTER support large-scale systems, processing millions of users annually.

Each country has significantly increased the speed of social services administration (Figure 3).

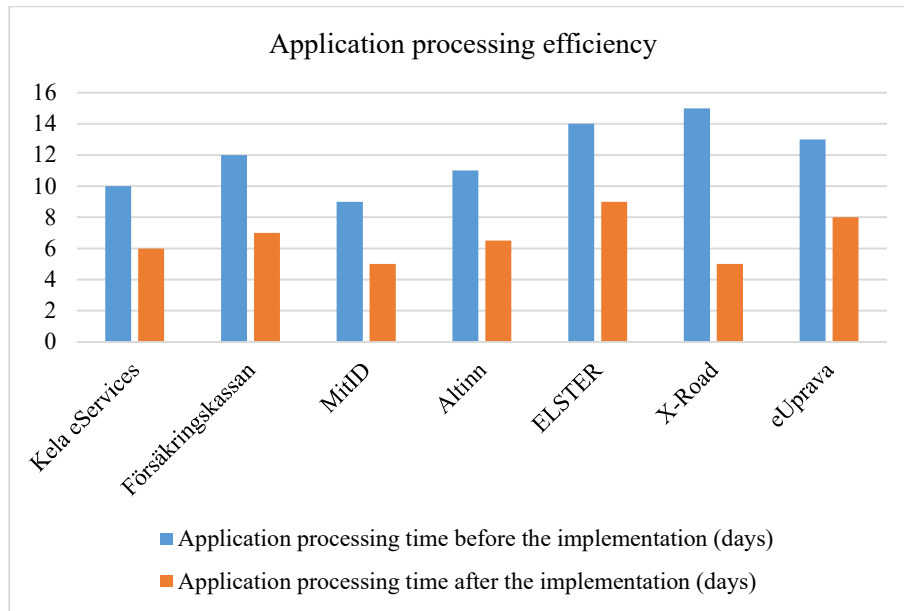


Figure 3: Comparison of application processing efficiency after the implementation of electronic platforms

Source: developed by the authors

The effectiveness of the platforms is also reflected in the increased number of users receiving services online, which on average reaches 80-95%. This has led to a reduction in administrative costs: MitID and Altinn reduced costs by 15-20% due to automation. So, digital tools have not only improved accessibility, but also increased the economic sustainability of social services in the countries of implementation. Correlation analysis between the SPI and SDG Indices revealed a moderate positive relationship – $r = 0.675$ with a high statistical significance $p = 0.032$, indicating the importance of integrating social and sustainable initiatives.

5. DISCUSSION

The findings of this study align with contemporary academic discourse on the role of technological innovation in sustainable development, while also introducing a distinct analytical focus on digital platforms for social service administration. Hasan et al. [24] explore the contribution of biofuel economies to the achievement of the SDGs, reinforcing the broader consensus on the importance of innovation in sustainability strategies. However, their emphasis on environmental technologies contrasts with the present study, which concentrates on digital infrastructures and their social applications. McCoyd et al. [25] address the resilience of social workers during the COVID-19 pandemic, highlighting the

need for institutional adaptability and user-centred service models. Although their work prioritizes the human and organizational aspects of service delivery, it supports our findings on the necessity of flexible, accessible systems—achieved here through automation and digital integration. The technological lens of this study offers a complementary perspective, demonstrating how well-designed digital platforms can systematize accessibility, reduce administrative burden, and support broader development goals. Moreno et al. [26] analysed the use of technology by social service users, which is consistent with our findings on the increasing effectiveness of digitalization in social security. However, their work is less concerned with the integration of strategies at the community level. Hummel and Szekely [27] focused on the disclosure of information on the SDGs in Europe, which emphasizes the importance of transparency.

Imbrenda et al. [28] studied the dynamics of forestry in the context of sustainable development, which emphasizes the importance of an ecological approach. Their work confirms our findings on the importance of integrating sustainable development strategies, although with a different emphasis. Verina et al. [29] determined the role of culture as a driver of sustainable development, which complements our findings on an integrated approach to social policy. However, their analysis of the cultural aspect is limited and does not take into account the technological component.

Raihan [30] examined the social, environmental, and economic aspects of sustainable forestry in Europe, which partly has something in common without emphasis on an interdisciplinary approach. However, his work is more focused on the environmental sphere. Iott and Anthony [31] studied the role of hospitals in the USA in providing social services, which confirms the importance of intersectoral collaboration, similar to our findings on the integration of public and social services.

Liu et al. [32] examined the role of cities and citizen science in achieving the SDGs, emphasizing the importance of public participation. This correlates with our findings on the need for inclusiveness of digital platforms, although their focus on citizen science is specific. Kyryliuk et al. [33] considered the governance of digital social services, which is closely related to our findings on the importance of integrating digital platforms into social policy. Their analysis supports our key points.

Zaida Muflih [34] compared digital forensic tools for social media, which reveals the technical aspects of using digital platforms. Although their work has a different focus, it emphasizes the importance of technological innovation, which is consistent with our findings on the prospects for modernizing social services.

Existing studies confirm the relevance of our results, emphasizing the integration of digital platforms and technologies to achieve sustainable community development. At the same time, different emphases of individual studies, such as the environmental or cultural component, complement the content of the issue of sustainable community development.

5.1. Limitations

One of the limitations of the study is that it focuses on countries with high digitalization rates only, which leaves out regions with less developed digital infrastructure. Moreover, the study was based on secondary data, which may limit the depth of analysis of certain aspects of digitalization. It does not sufficiently take into account the influence of cultural and social specifics, which can significantly affect the effectiveness of the implementation of digital platforms.

5.2. Recommendations

The conducted research gives grounds to propose the following measures to increase the effectiveness of digital platforms in the field of social services administration:

1. Develop and implement national standards for the integration of digital platforms into social services, focusing on the best practices of European countries.

2. Create a single centralized platform for the social services administration, which will ensure accessibility, transparency, and efficiency of their provision for all citizens.

3. Introduce programmes to increase digital literacy among the population, especially in vulnerable groups, to ensure equal access to digital services.

4. Invest in cybersecurity and technical infrastructure to protect the personal data of social platform users.

5. Create mechanisms for monitoring and evaluating the effectiveness of digital platforms, which will allow identifying problems and implementing innovations based on real data.

6. CONCLUSION

This study investigated the effectiveness of digital platforms for social services administration in the context of sustainable community development in Europe. The results confirm that the integration of advanced digital tools contributes significantly to improving service accessibility, reducing administrative burden, and aligning social governance with the objectives of the Sustainable Development Goals (SDGs). By analysing platforms from countries with high digital maturity—such as Estonia, Finland, and Denmark—the study illustrates how automation, user coverage, and system integration enhance both operational efficiency and social inclusion.

The novelty of this research lies in its combination of statistical modelling (SEM), benchmarking, and correlation analysis to quantify the relationship between digital platform performance and sustainable development indicators (SPI and SDG). These findings highlight the potential of digital platforms to become strategic instruments in sustainable policy implementation. In practical terms, the research supports the formulation of recommendations for national and international policymakers aiming to modernize social service infrastructure. Emphasis should be placed on the development of centralized digital systems, data security protocols, and programmes to increase digital literacy among vulnerable groups. The results serve as a foundation for future studies exploring the replicability of such systems in diverse socio-economic and regional settings, especially in

countries with moderate or developing digital capacities.

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