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Международна научно-практическа конференция

90 години дарителство, знание, иновации и устойчиво развитие в СА „Д. А. Ценов" – Свищов

Том II



5-7 ноември 2026 г.

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CONVERGENCE OR DIVERGENCE? DIGITAL TRANSFORMATION AND EMERGING INTERNATIONAL MARKETING TRENDS IN ROMANIA AND BULGARIA

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Abstract

This study investigates the dynamics of digital transformation in Romania and Bulgaria during 2021–2025, examining whether technological adoption patterns indicate convergence or divergence between the two economies and relative to the European Union. Using a quantitative, comparative research design based on Eurostat indicators, the analysis focuses on four dimensions relevant to international marketing: enterprise social media adoption, electronic sales, online purchasing behaviour, and artificial intelligence adoption. The methodological framework combines bilateral digital gaps, changes in technological adoption, average annual variations, and deviations from EU-27 benchmarks.

The findings reveal differentiated digital development patterns, with Romania demonstrating stronger enterprise social media participation, while Bulgaria records higher artificial intelligence adoption and slightly greater participation in electronic sales. Available longitudinal observations suggest widening bilateral differences in selected dimensions, although methodological changes limit the comparability of certain statistical series. Both countries remain below European benchmarks across the examined indicators, indicating that bilateral market similarities do not necessarily reflect advanced digital maturity.

The study contributes to international marketing research by providing a multidimensional framework for assessing digital market differences and highlighting the strategic relevance of country-specific technological capabilities. The results suggest that international marketing strategies should balance the standardisation of digital infrastructures with adaptation to national market conditions.

Keywords: *Digital transformation; International marketing; Digital convergence; Artificial intelligence; Electronic commerce; Romania and Bulgaria.*

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1. Introduction

The international marketing environment has undergone significant transformations driven by the increasing integration of digital technologies into business activities, consumer interactions, and competitive strategies. Digital transformation extends beyond technological adoption, reshaping organisational capabilities, business models, and value creation processes. Consequently, international marketing strategies are increasingly influenced by technological innovation, market characteristics, and evolving consumer expectations (Verhoef, et al., 2021)

The expansion of electronic commerce, social media, and data-driven marketing has facilitated international market access and more personalised consumer engagement. However, the effectiveness of these instruments depends on organisational readiness, technological capabilities, and consumer behaviour, making digitalisation a strategic rather than merely operational process (Dwivedi, et al., 2021). Artificial intelligence further accelerates these changes by supporting marketing automation, consumer analysis, segmentation, and personalised communication, while introducing new challenges related to strategic integration and organisational adaptation (Huang & Rust, 2021)

Beyond individual technological applications, digital transformation is reshaping the international business environment by influencing firms' organisational capabilities, cross-border activities, and strategic decision-making processes. However, the increasing integration of digital technologies does not eliminate the importance of national market characteristics, as institutional, economic, and technological differences continue to shape international business strategies. This perspective highlights the need to examine digital transformation not only as a global phenomenon but also through comparative analyses of national markets (Schmeisser, Saebi, Schotter, & Gooderham, 2026).

In international marketing, these developments reinforce the importance of balancing strategic standardisation with adaptation to national market conditions. Although digital platforms facilitate cross-border marketing activities, differences in technological adoption, digital capabilities, and consumer behaviour continue to influence the implementation of international.

Romania and Bulgaria provide a relevant context for examining these dynamics. Both countries joined the European Union in 2007 and share a common regulatory framework, geographical proximity, and certain structural characteristics. Nevertheless, differences in digital development and business practices may generate distinct conditions for international marketing. Their comparison offers an opportunity to investigate whether digital market environments are converging or maintaining significant disparities.

Against this background, the present study examines the evolution of digital transformation indicators relevant to international marketing in Romania and Bulgaria during 2021–2025. The analysis focuses on enterprise social media adop-

tion, electronic commerce participation, online purchasing behaviour, and artificial intelligence utilisation. These indicators are considered characteristics of the digital market environment rather than direct measures of marketing performance.

The central research question is: To what extent did Romania and Bulgaria experience convergence or divergence in digital market conditions relevant to international marketing between 2021 and 2025, and what implications might these developments have for the standardisation and adaptation of marketing strategies?

The study employs a comparative longitudinal approach based on harmonised secondary statistical data, primarily from Eurostat. By examining indicator dynamics, bilateral differences, and EU-level benchmarks, the research identifies patterns of digital convergence and divergence between the two countries.

The study contributes to the literature by providing an integrated comparative assessment of digital market developments, proposing an indicator-based framework for evaluating convergence and divergence, and discussing the implications of these patterns for international marketing decisions. Its findings aim to support a more context-sensitive understanding of strategic standardisation and adaptation in digitally evolving European markets.

2. Literature review and theoretical framework

2.1. Digital Transformation and International Marketing

Digital transformation has become an important driver of international business development, influencing how companies access foreign markets, organise cross-border operations, and establish relationships with consumers. Beyond the implementation of digital technologies, this process involves changes in organisational structures, strategic capabilities, and value creation mechanisms. Digitalisation may facilitate international expansion by reducing certain transaction and communication costs, although its effects depend on organisational resources and external market conditions (Feliciano-Cestero, Ameen, Kotabe, Paul, & Signoret, 2023) (Schmeisser, Saebi, Schotter, & Gooderham, 2026).

From a marketing perspective, digital platforms, social media, and electronic commerce provide opportunities to coordinate activities across countries while improving customer engagement and market responsiveness. Artificial intelligence further extends these capabilities through predictive analytics, automation, and personalised communication. However, technological adoption alone does not guarantee competitive advantages, as successful implementation requires appropriate organisational capabilities and strategic integration (Dwivedi, et al., 2021) (Huang & Rust, 2021).

2.2. Digital Market Convergence and Divergence

The diffusion of digital technologies may encourage convergence between national markets by facilitating access to common platforms, communication tools, and commercial infrastructures. Nevertheless, digitalisation does not

eliminate differences in institutional environments, technological resources, or business capabilities. International companies continue to operate within national contexts that influence their digital strategies and internationalisation decisions (Meyer, Li, Brouthers, & Jean, 2023).

Consequently, digital convergence should not be interpreted as the complete homogenisation of markets. Instead, it can be examined as a process through which differences in selected indicators decrease over time. Conversely, divergence occurs when these differences increase. Such an approach enables the identification of distinct development trajectories across multiple dimensions, including enterprise digitalisation, electronic commerce, consumer participation, and emerging technology adoption.

The comparison of Romania and Bulgaria provides an opportunity to investigate these processes within a shared European institutional framework. Although both countries operate within the European Union, their technological development may differ across specific dimensions. Examining these differences longitudinally can reveal whether digital market conditions are becoming more similar or following separate trajectories.

2.3. Implications for International Marketing Strategy

The relationship between digital transformation and international marketing strategy can be examined through the balance between standardisation and adaptation. Common digital platforms may facilitate the coordination of marketing activities across countries, while differences in technological capabilities, consumer behaviour, and market characteristics may require differentiated approaches.

Recent international business research suggests that digitalisation transforms cross-border business activities without eliminating the influence of national institutions and market-specific constraints (Meyer, Li, Brouthers, & Jean, 2023) (Schmeisser, Saebi, Schotter, & Gooderham, 2026). Accordingly, the suitability of standardised or adapted marketing strategies depends not only on technological availability but also on the conditions under which digital technologies are adopted and utilised.

Building on these perspectives, the present study adopts an indicator-based framework to examine convergence and divergence in the digital environments of Romania and Bulgaria. Enterprise social media adoption, electronic commerce, online purchasing behaviour, and artificial intelligence utilisation are considered complementary dimensions of digital market development. Their comparative evolution provides an empirical basis for discussing potential implications for international marketing strategy, without assuming a direct causal relationship between digitalisation indicators and marketing performance.

3. Research methodology

3.1. Research Design and Analytical Framework

The research adopts a quantitative, comparative longitudinal design to assess the evolution of digital market conditions relevant to international marketing in Romania and Bulgaria over the period 2021–2025. The methodological approach combines descriptive statistical analysis, temporal variation assessment, bilateral gap measurement, and benchmarking against the European Union average (EU-27). The analysis is conducted at the country-indicator-year level, allowing differences in digital development to be examined both cross-sectionally and over time.

The selection of Romania and Bulgaria follows a most-similar-systems comparative logic. Both countries joined the European Union in 2007, operate within a common European regulatory framework, and share geographical and certain structural characteristics. These similarities provide a relevant comparative setting for examining differences in digital adoption. However, the research does not assume that the two economies are structurally identical or that their digital development trajectories are determined by EU membership.

The conceptual framework distinguishes between digital market conditions and international marketing outcomes. The former are operationalised through observable indicators of enterprise technology adoption and consumer participation in digital markets. The latter concern strategic decisions, including market entry, communication standardisation, and local adaptation. Given the aggregate nature of the statistical data, the analysis focuses on the first category and interprets its potential strategic implications without claiming to measure marketing effectiveness directly.

3.2. Data Collection, Statistical Population and Indicator Selection

The empirical analysis is based on secondary data from Eurostat's harmonised surveys on ICT usage and e-commerce in enterprises and ICT usage by households and individuals. The geographical units are Romania (RO), Bulgaria (BG), and the EU-27 aggregate, while the temporal framework comprises the years 2021–2025.

Enterprise-level indicators generally refer to businesses with at least ten employees and self-employed persons within the economic activities covered by the Eurostat survey. Household indicators refer to individuals within the corresponding survey population, generally aged 16–74. Since these statistical populations differ, enterprise and individual indicators are analysed separately rather than combined into a single measure.

Four core indicators are selected according to three criteria: theoretical relevance to international marketing, availability of harmonised statistical definitions, and sufficient temporal comparability.

Table 1. Operationalisation of research variables

Code	Variable	Operational definition	Unit
I1	Social media adoption	Enterprises using at least one social media platform	% of enterprises
I2	Electronic sales participation	Enterprises conducting electronic sales	% of enterprises
I3	Online purchasing behaviour	Individuals purchasing goods or services online within the previous 12 months	% of individuals
I4	AI adoption	Enterprises using at least one AI technology	% of enterprises

Source: Authors' operationalisation based on Eurostat ICT statistics.

The selection captures four complementary dimensions: digital communication infrastructure, commercial digitalisation, consumer participation, and advanced technological adoption.

For each indicator, observations are extracted using consistent country codes, measurement units, enterprise-size categories, and relevant statistical classifications. The precise Eurostat dataset codes, variable filters, extraction date, and applicable metadata are documented to ensure reproducibility.

Particular attention is given to reference-period differences. Enterprise electronic sales statistics may refer to the calendar year preceding the survey, whereas other ICT adoption indicators generally describe the situation during the survey year. Consequently, survey years and underlying economic reference periods are distinguished when interpreting temporal developments.

3.3. Data Validation and Harmonisation

Before statistical analysis, the dataset is subjected to a harmonisation procedure consisting of four operations.

First, indicator definitions and measurement units are verified to ensure comparability between Romania, Bulgaria, and the EU-27 aggregate. Second, Eurostat observation flags are examined to identify missing, estimated, provisional, or otherwise qualified values. Third, potential methodological discontinuities are assessed using the corresponding metadata. Fourth, observations are retained only when they are sufficiently comparable across the countries included in the analysis.

Missing values are not replaced through interpolation or extrapolation in the principal analysis. Where complete annual series are unavailable, comparisons are restricted to common observation years. Accordingly, the longitudinal analysis may cover different numbers of observations across indicators.

For descriptive purposes, the dataset is structured at the country – indicator – year level, with each observation denoted by $X_{c,k,t}$, where c represents the geographical unit (Romania, Bulgaria or EU-27), k identifies the digitalisation indicator, and t denotes the reference year. All indicators are expressed as percentages, while differences between observations are reported in percentage points.

3.4. Measurement of Digital Convergence and Divergence

The principal analytical objective is to determine whether the digital market conditions of Romania and Bulgaria became more similar or more differentiated during the observation period.

For each indicator, the bilateral absolute gap is calculated as:

$$G_{k,t} = \left|X_{RO,k,t} - X_{BG,k,t}\right| \qquad (1)$$

where: $G_{k,t}$ represents the absolute bilateral gap, expressed in percentage points; $X_{RO,k,t}$ and $X_{BG,k,t}$ represent the observed values of indicator k for Romania and Bulgaria, respectively, in year t; k denotes the digitalisation indicator and t represents the reference year.

The direction and magnitude of convergence are determined through the change in the bilateral gap:

$$\Delta G_k = G_{k,t_1} - G_{k,t_0} \qquad (2)$$

where t_0 and t_1 represent the first and last comparable observations.

Three outcomes are distinguished:

- $\Delta G_k < 0$ – convergence, indicating a reduction in the bilateral gap.
- $\Delta G_k > 0$ – divergence, indicating an increase in the bilateral gap.
- $\Delta G_k = 0$ – unchanged gap, indicating no net change between the selected observations.

To distinguish convergence from the direction of national development, changes in the underlying indicator values are also calculated:

$$\Delta X_{c,k} = X_{c,k,t_1} - X_{c,k,t_0} \qquad (3)$$

This additional measure is necessary because a declining bilateral gap does not necessarily indicate improvements in digital development. Convergence may result from stronger progress in the initially less-developed country, slower growth in the initially more-developed country, or deterioration in one or both countries.

3.5. European Benchmarking and Relative Positioning

The bilateral analysis is complemented by an assessment of each country's position relative to the EU-27 aggregate.

For each indicator, the signed deviation from the European benchmark is calculated as:

$$D_{c,k,t} = X_{c,k,t} - X_{EU,k,t} \qquad (4)$$

where $D_{c,k,t}$ represents the difference, in percentage points, between the national value and the EU-27 aggregate.

A negative deviation indicates a national value below the European benchmark, while a positive deviation indicates a value above it. Changes in these deviations are analysed to determine whether Romania and Bulgaria are approaching or moving away from the European reference level.

For indicators where higher values represent broader technology adoption or digital participation, an increase in a negative deviation towards zero is interpreted as a reduction in the national digital adoption gap.

The combined bilateral and European analyses distinguish between convergence occurring alongside improved digital adoption and convergence occurring without comparable progress towards the EU benchmark.

3.6. Temporal Dynamics and Robustness Assessment

To evaluate the intensity of change, the average annual variation in percentage points is calculated for indicators with comparable observations:

$$AAV_{c,k} = \frac{X_{c,k,t_1} - X_{c,k,t_0}}{t_1 - t_0} \qquad (5)$$

where (AAV) represents the average annual change over the observed interval.

When at least three comparable observations are available, intermediate annual developments are also examined to identify fluctuations, reversals, and non-linear trajectories that may be obscured by endpoint comparisons.

A robustness assessment is performed by comparing endpoint-based classifications with the evolution of the observed annual gaps. Indicators exhibiting substantial fluctuations or changes in statistical definitions are interpreted cautiously.

Given the limited number of countries and annual observations, the analysis does not employ multivariate regression models or inferential procedures requiring larger samples. The objective is to identify and interpret observed patterns rather than estimate causal effects.

3.7. Interpretation and Methodological Limitations

The empirical results are interpreted through the theoretical perspective of international marketing standardisation and adaptation. Reduced differences in digital market conditions may indicate areas in which common marketing approaches become more feasible, whereas persistent or increasing differences may suggest a greater need to investigate market-specific adjustments.

However, the framework does not establish a deterministic relationship between digital convergence and marketing strategy. Strategic decisions also depend on cultural preferences, competitive structures, sectoral characteristics, institutional conditions, and organisational resources.

The study is further constrained by the use of aggregated secondary data, possible discontinuities in ICT indicators, differences between enterprise and household statistical populations, and the exclusion of micro-enterprises from the principal enterprise survey population.

These limitations restrict causal interpretation and prevent the direct generalisation of national digitalisation patterns to individual firms. Nevertheless, the proposed analytical framework provides a transparent and reproducible basis

for identifying digital convergence and divergence and discussing their potential implications for international marketing.

4. Results and Comparative Analysis

4.1. Comparative Assessment of Digital Market Indicators

The comparative assessment of Romania and Bulgaria reveals differences in the adoption of digital technologies across the four dimensions considered in the research framework. The available Eurostat evidence indicates that the two economies share relatively low levels of enterprise participation in electronic commerce compared with the European Union average, while exhibiting more pronounced differences in the adoption of artificial intelligence.

The analysis focuses on the technological conditions underpinning international marketing activities rather than on marketing performance itself. Accordingly, enterprise social media adoption is interpreted as an indicator of digital communication capabilities, electronic sales as a measure of commercial digitalisation, online purchasing as an expression of consumer participation in digital markets and AI adoption as an indicator of advanced technological integration.

Table 2. Selected digital market indicators in Romania, Bulgaria and the EU

Indicator	Romania (%)	Bulgaria (%)	EU-27 (%)
Enterprises using social media	41,0	38,0	61,0
Enterprises conducting electronic sales	15,0	16,0	24,0
Enterprises using AI technologies	5,2	8,5	20,0

Source: Authors' compilation based on Eurostat (2024, 2025, 2026)

The figures indicate that neither country demonstrates consistently higher digital adoption across the selected dimensions. Romania recorded a slightly higher proportion of enterprises using social media in 2023, whereas Bulgaria displayed higher participation in electronic sales and AI adoption in the available 2025 observations.

These findings suggest a differentiated structure of digital development rather than a uniform technological advantage. The relative position of each country varies according to the digital capability examined, highlighting the importance of multidimensional comparisons in international marketing research.

4.2. Bilateral Differences in Digital Adoption

Applying first equation, the absolute bilateral gaps can be calculated for the indicators and reference years reported in Table 2.

Table 3. Absolute bilateral gaps in selected digital indicators. Romania – Bulgaria differences

Indicator	Gap
Social media	3
E-sales	1
AI	3,3

Source: Authors' compilation based on Eurostat (2024, 2025, 2026)

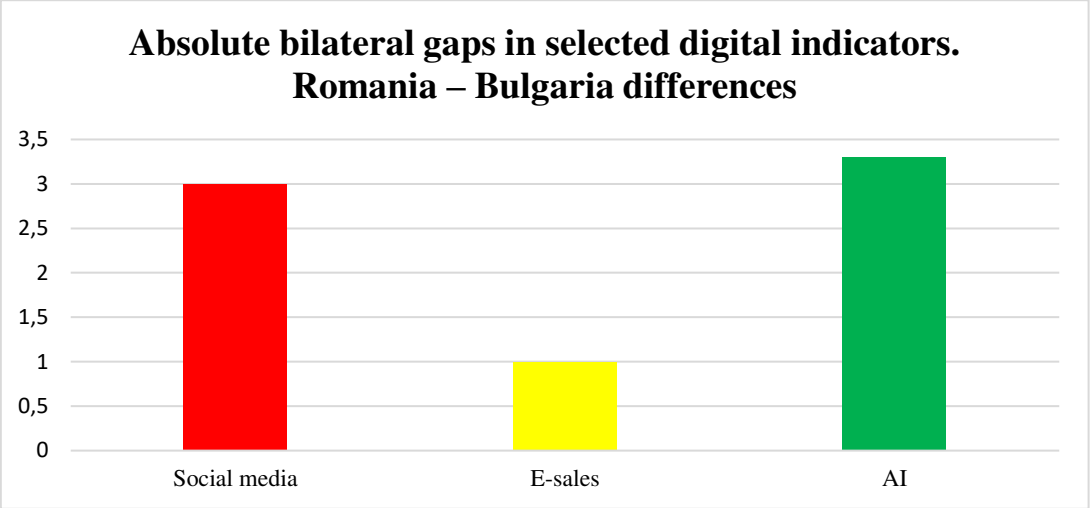


Figure. 1. Absolute bilateral gaps in selected digital indicators. Romania – Bulgaria differences

Source: Authors' compilation based on Eurostat (2024, 2025, 2026)

The smallest observed difference concerns enterprise participation in electronic sales, with a gap of approximately one percentage point. This indicates a relatively similar prevalence of electronic sales activities among enterprises in the two economies, although it does not establish equivalence in online sales revenues, cross-border transactions, or digital commercial performance.

The social media indicator reveals an approximate three-percentage-point advantage for Romania in 2023. Conversely, Bulgaria exceeded Romania in enterprise AI adoption by 3.3 percentage points in 2025. This latter difference is particularly relevant because it concerns an emerging technological capability potentially associated with advanced data processing, marketing automation, and customer interaction.

Nevertheless, the observed differences represent cross-sectional gaps rather than longitudinal convergence or divergence. Their interpretation must therefore be distinguished from the change-in-gap measure defined in equation 2, which requires comparable observations from at least two reference years.

4.3. Positioning within the European Digital Environment

The comparison with the EU-27 benchmark provides an additional perspective on the relative digital development of Romania and Bulgaria. Applying Equation 3, the signed deviations from the European average reveal substantial differences in the adoption of digital technologies.

Table 4. Deviations from the EU-27 benchmark (percentage points)

Indicator	Romania (%)	Bulgaria (%)
Enterprises using social media	− 20.0	− 20.0
Enterprises conducting electronic sales	− 9.0	− 9.0
Enterprises using AI technologies	− 14.8	− 14.8

Source: Authors' calculations based on Eurostat (2024, 2025, 2026).

The results demonstrate that both countries remained below the EU average across all three indicators. However, the magnitude of the differences varied considerably.

In enterprise social media adoption, Romania recorded a deviation of approximately −20 percentage points, compared with −23 percentage points for Bulgaria. This suggests that both countries faced a substantial gap in enterprise use of digital communication platforms relative to the European benchmark.

Electronic sales participation presented a narrower difference, with Romania and Bulgaria recording deviations of approximately −9 and −8 percentage points, respectively. Although these results indicate similar levels of participation in digital commercial activities, they also suggest considerable potential for further development.

The largest relative challenge concerns the adoption of artificial intelligence. In 2025, only 5.2% of Romanian enterprises and 8.5% of Bulgarian enterprises reported using AI technologies, compared with 20.0% across the European Union (Eurostat, 2026).

The European comparison therefore indicates that bilateral similarity should not automatically be interpreted as digital maturity. Romania and Bulgaria may exhibit relatively small differences in certain dimensions while simultaneously remaining substantially below the European benchmark.

4.4. Synthesis of Empirical Findings

The available evidence highlights three characteristics of the digital market environments in Romania and Bulgaria.

First, digital adoption is heterogeneous across technological dimensions. Neither country consistently outperforms the other, suggesting that their digital development profiles cannot be adequately represented by a single indicator.

Second, relatively small bilateral differences coexist with substantial gaps relative to the EU average. This distinction is particularly relevant for interpreting market similarity, as comparable adoption levels do not necessarily indicate advanced technological development.

Third, the adoption of emerging technologies presents a different comparative pattern from that observed in established digital communication activities. Bulgaria's higher enterprise AI adoption contrasts with Romania's higher reported social media adoption in 2023, suggesting that technological development does not necessarily follow identical trajectories across digital domains.

From an international marketing perspective, these findings support a multidimensional interpretation of national digital environments. Similarities in electronic sales participation may provide a basis for investigating common commercial approaches, whereas differences in advanced technological adoption may justify further examination of market-specific capabilities and implementation requirements.

However, these observations do not establish whether digital convergence or divergence occurred throughout 2021–2025. Such a conclusion requires the

application of Equation (2) to harmonised longitudinal series. Similarly, the analysis of online purchasing behaviour, which constitutes the fourth research indicator, must be incorporated once the corresponding country-level observations have been extracted and validated.

Consequently, the results presented here constitute a verified cross-sectional component of the empirical analysis, while the complete longitudinal assessment remains necessary to answer the central research question.

5. Discussion and implications for international marketing

5.1. Digital Divergence and Market-Specific Transformation

The empirical findings suggest that digital transformation in Romania and Bulgaria follows differentiated rather than uniformly convergent trajectories. Despite their geographical proximity and shared European institutional framework, the two economies exhibit distinct patterns of technological adoption. Romania demonstrates stronger enterprise participation in social media, whereas Bulgaria records higher adoption of artificial intelligence and a marginal advantage in electronic sales.

These differences support the argument that digital transformation is not a homogeneous process determined exclusively by access to technological infrastructure. Instead, its development depends on the interaction between organisational capabilities, technological readiness and national market conditions. Consequently, digital integration does not necessarily eliminate structural differences between national markets (Verhoef, et al., 2021) (Feliciano-Cestero, Ameen, Kotabe, Paul, & Signoret, 2023).

The observed widening of selected bilateral gaps further suggests that simultaneous digital development may coexist with divergence. However, this interpretation remains conditional on the comparability of the underlying statistical series, particularly for artificial intelligence adoption.

5.2. Strategic Implications for International Marketing

The findings have implications for the balance between standardisation and adaptation in international marketing strategies. Similarities in certain digital indicators may support the use of common technological platforms and communication infrastructures across Romania and Bulgaria. Nevertheless, differences in enterprise adoption patterns suggest that implementation strategies should reflect market-specific digital capabilities.

Romania's comparatively stronger enterprise social media participation may indicate a more established organisational presence on digital communication platforms. Bulgaria's higher AI adoption, by contrast, may suggest relatively greater diffusion of advanced technologies among enterprises. However, adoption rates alone cannot establish differences in marketing effectiveness, technological sophistication or the quality of implementation.

For internationally active firms, the results therefore favour a selective approach to strategic standardisation. Common marketing objectives and technological architectures may be maintained across both markets, while the allocation of digital resources, the implementation of AI-supported processes and the selection of communication channels should be informed by local market evidence. This perspective is consistent with research emphasising the strategic integration of AI and the importance of organisational capabilities in digital transformation (Huang & Rust, 2021) (Feliciano-Cestero, Ameen, Kotabe, Paul, & Signoret, 2023).

5.3. Theoretical Contribution and Research Limitations

The study contributes to international marketing research by distinguishing three dimensions of digital market development: national technological adoption, bilateral convergence or divergence, and relative positioning within the European digital environment. This analytical distinction is relevant because similar levels of adoption between two countries do not necessarily imply digital maturity or convergence towards European standards.

The findings also highlight the importance of examining digital transformation through multiple indicators rather than treating it as a single process. Differences between established digital communication technologies and emerging AI applications suggest that national digital trajectories may vary according to technological complexity and organisational requirements.

Several limitations must nevertheless be acknowledged. The analysis relies on aggregate Eurostat indicators, which measure technology adoption and digital participation rather than international marketing performance. Furthermore, differences in statistical reference periods and documented methodological changes restrict the comparability of certain longitudinal observations. The descriptive research design also prevents causal inferences regarding the relationship between digital transformation and marketing outcomes.

Future research could extend the analysis through enterprise-level data, sector-specific comparisons and longitudinal models incorporating institutional and organisational determinants. Such investigations would provide a more detailed understanding of how national digital environments influence international marketing strategies and cross-border competitiveness.

6. Conclusions

This study examined digital transformation and emerging international marketing trends in Romania and Bulgaria during 2021–2025, focusing on enterprise social media adoption, electronic commerce, online purchasing behaviour and artificial intelligence. By combining bilateral comparisons with European Union benchmarks, the research sought to determine whether the two economies exhibit convergent or divergent patterns of digital development.

The findings suggest that digital transformation is characterised by selective divergence rather than uniform convergence. Romania demonstrated comparatively stronger enterprise participation in social media, whereas Bulgaria recorded higher artificial intelligence adoption and slightly greater participation in electronic sales. Although both countries experienced progress in selected digitalisation dimensions, differences in their technological adoption profiles persisted and, for certain indicators, increased over the observed periods. These conclusions remain subject to the comparability limitations identified in the longitudinal statistical series.

The comparison with the EU-27 further demonstrated that bilateral similarities do not necessarily indicate advanced digital development. Both economies continued to exhibit substantial gaps relative to the European benchmark, particularly in the adoption of advanced technologies. Consequently, digital market convergence should be assessed not only through differences between neighbouring economies but also in relation to broader European transformation trends.

The study contributes to international marketing research by proposing a multidimensional comparative framework that distinguishes technological adoption, bilateral market differences and European digital positioning. From a managerial perspective, the findings support the adoption of international marketing strategies that combine common digital infrastructures with market-specific adjustments reflecting differences in technological readiness and organisational capabilities.

Overall, the evidence indicates that Romania and Bulgaria are participating in a shared European digital transformation process without necessarily following identical development trajectories. Further longitudinal and enterprise-level research is required to establish the determinants and strategic consequences of these differences.

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