CHAPTER 3
MODERN MANAGEMENT TECHNOLOGIES

INTEGRATED ASSESSMENT OF INTERNET MARKETING EFFECTIVENESS IN THE DIGITAL ECONOMY

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Abstract. *In the digital economy, evaluating Internet marketing effectiveness is pivotal for aligning strategic goals with market dynamics. European firms typically embed advanced analytics (Big Data, AI, GDPR-aware data practices) within mature CRM ecosystems, whereas many Ukrainian enterprises are still consolidating analytical infrastructure, KPI standards, and digital competencies. This asymmetry underscores the need for integrated, comparable assessment frameworks across contexts. The article aims to systematize scientific approaches to assessing Internet marketing effectiveness and to justify an integrated indicator - the EMD (Efficiency of Marketing in Digital)—that aggregates financial, behavioral, and perceptual metrics for comprehensive evaluation and inter-firm comparison. A mixed-methods design combines a narrative review of contemporary scholarship on performance measurement in digital marketing with a comparative analysis (2022–2024) using open company reports, advertising platform data (e.g., Google Ads, Meta Business Suite), and secondary industry sources. Quantitative procedures include normalization and weighted aggregation of KPIs (ROI, CLV, CAC, CR, RR, NPS) into the composite EMD index; qualitative interpretation considers market positioning and strategic objectives. The study confirms a shift from fragmented, finance-only metrics to integrated KPI systems that capture profitability (ROI), customer economics (CLV/CAC), funnel quality (CR), loyalty (RR), and advocacy (NPS). The proposed EMD metric consolidates these dimensions, enabling transparent benchmarking and strategy adjustment. Testing the model on leading Ukrainian telecom operators demonstrates discriminative power: firms investing in segmentation, personalization, automation, and advanced CRM outperform peers on ROMI, retention, and the composite EMD score; those relying on price competition without robust analytics lag on CLV and NPS. The EMD framework thus supports real-time control, cross-company comparison, and evidence-based optimization of marketing resources. An integrated, data-driven assessment architecture is essential for strategic management of Internet marketing. The EMD index operationalizes this architecture by unifying key indicators into a single, scalable measure that enhances decision quality and transparency. Future research should validate EMD across sectors and countries, calibrate weighting schemes under GDPR-like constraints, link metric movements to causal interventions (e.g., AI-based personalization), and explore predictive variants of EMD for proactive budget allocation and customer journey orchestration.*

Keywords: *integrated evaluation; integrated model; marketing performance assessment; Internet environment; Internet marketing; key performance indicator system.*

JEL Classification: M 31, M 37, M 15
Formulas: 1; fig.: 2; table: 1; bibl.: 25

Introduction. A rationally designed marketing mix represents an integrated system of interrelated tools, methods, and activities aimed at enhancing the efficiency of business operations in a competitive market environment. The key components of this mix include product policy, pricing, distribution systems, and marketing communications. Together, they form the so-called "marketing mix," which enables companies to achieve their strategic goals through systematic interaction with the market environment.

In the context of an unstable external environment, the evaluation of marketing performance becomes particularly important, as it allows enterprises to assess the level of goal attainment, justify the effectiveness of applied marketing tools, and promptly identify shortcomings in the implementation of strategic initiatives.

The issue of evaluating the effectiveness of Internet marketing activities remains highly relevant both for the countries of the European Union and for Ukraine. However, the scale and specifics of this problem vary significantly due to differences in market maturity, the degree of digital transformation, and the characteristics of consumer behavior in each region.

In European countries, Internet marketing has long been integrated into enterprises' overall business strategies and is an essential component of their commercial activities. High competition intensity, significant market saturation with goods and services, and increasing consumer demands necessitate the use of accurate and multifactorial models for evaluating marketing performance. European companies actively implement Big Data analytics, predictive modeling, artificial intelligence (AI), real-time dashboards, and functionally enhanced CRM systems with advanced customer segmentation capabilities. An additional factor shaping modern marketing analytics is strict compliance with European data privacy standards, particularly GDPR, which imposes heightened requirements for the collection, storage, and processing of marketing data and stimulates the development of more ethical and precise analytical approaches.

In contrast, the level of digital maturity in Ukraine’s marketing processes is still at the stage of active formation. Many Ukrainian enterprises, especially in the telecommunications sector, have only recently begun the systematic implementation of CRM platforms, web analytics tools, performance marketing, and automated marketing campaign monitoring systems. The main barriers include data incompleteness and fragmentation, limited financial and human resources, insufficient integration of analytical systems, and the absence of unified methodological standards for evaluating marketing effectiveness.

At the same time, these challenges create favorable conditions for the innovative development of domestic marketing practices. The use of integrated effectiveness assessment models, particularly the EMD indicator, enables Ukrainian companies to accelerate adaptation to market demands, reduce the gap with European practices, and ensure a more strategically justified approach to managing marketing activities amid growing competition and economic digitalization.

The development of a system of key performance indicators for marketing activities (including KPI, ROI, CLV, CAC, CR) is a necessary prerequisite for a

comprehensive analysis of both internal enterprise resources and its market positioning. Applying such a model provides not only an objective evaluation of the current state of marketing strategy implementation but also allows for the identification of causal relationships between invested resources, marketing activities, and business outcomes. In the long term, this contributes to improved planning efficiency and more effective management of marketing processes.

Thus, while European businesses prioritize deep behavioral analytics, broad personalization, and big data optimization, Ukrainian enterprises currently focus on building a unified analytical infrastructure, standardizing KPI systems, and developing the digital competencies of marketing teams. These efforts will enable them to enhance the effectiveness of Internet marketing activities and successfully compete in both domestic and international markets.

Literature review. A substantial body of Ukrainian and international scholarship examines how firms evaluate and manage processes to improve the efficiency and effectiveness of marketing activities, converging on the need to connect strategic intent with measurable outcomes and operational control. Recent work stresses that effectiveness depends on coherent frameworks that integrate strategy, organization, and analytics across channels and touchpoints—an agenda advanced in studies of marketing management and improvement programs (Hobela & Ivanyshyn, 2024; Semak, Basiy, & Vovchanska, 2022) and in sector-specific analyses that formalize principles for managing marketing under digitalization, particularly in telecommunications (Vynohradova, Drokina, Denysov, & Nedopako, 2024; Vynohradova, Drokina, & Nedopako, 2024). Complementing these perspectives, research on B2B contexts specifies the strategic use of Internet-marketing tools to support positioning and lead generation (Bradulov & Ordynskyi, 2020), while studies on innovative technologies for small business highlight agile, resource-efficient adoption paths (Karpenko, Ivannikova, Yaloveha, Bilousko, & Zakharenko-Seleznyova, 2023).

Within the digital environment, the literature increasingly focuses on performance accountability and channel orchestration, with practical execution anchored in widely used applications. Diagnostic toolkits and KPI systems for e-commerce and online campaigns (Frolova & Nosova, 2019) are operationalized through Google Analytics 4/Looker Studio, Meta Business Suite, Google Ads, TikTok Ads, and LinkedIn Campaign Manager for acquisition and funnel visibility; Mailchimp, Sendinblue (Brevo), HubSpot, and Marketo for lifecycle automation and lead management; and Salesforce CRM or HubSpot CRM as systems of record. Engagement and UX measurement are supported by Hotjar, Microsoft Clarity, Mixpanel, and Amplitude, while experimentation platforms such as Optimizely or VWO enable A/B testing at scale. Media planning—the structural lever for efficiency noted by Zhurs'ka et al. (2024)—is increasingly integrated into reporting stacks via Power BI or Tableau dashboards that consolidate spend, reach/frequency, and outcome metrics across fragmented audiences. Practitioner repositories further codify baseline KPI taxonomies (ROI/ROMI, CAC, CLV, conversion, retention, NPS), easing comparability and rollout in firms of different sizes (Idea Digital Agency, 2022a; 2022b).

Methodologically, several works propose integrated measurement-and-control systems that move beyond finance-only views. Foundational approaches call for composite, multi-criteria evaluation (Pyvavar, Ponomarenko, & Lisna, 2019; Turchyn, 2021); more recent contributions assemble full indicator systems for managerial effectiveness (Romashchenko, Darchuk, Kachmala, & Snitko, 2025) and link KPI/OKR architectures to strategic alignment and execution (Semenenko, 2023). In practice, composite models are increasingly instantiated through tag managers (e.g., Google Tag Manager) for consistent data capture, CDP/analytics layers (e.g., Segment, GA4 BigQuery export) for identity resolution and cohorting, and attribution/MMM modules embedded in BI stacks for channel-mix optimization. Specialized strands address blind spots such as loyalty-program evaluation (Sobolyeva-Tereshchenko & Antonova, 2019) by combining CRM event streams with RFM/CLV modeling in Python/R or BI, and by integrating SEO suites (Ahrefs, SEMrush) to connect content-marketing KRIs (Derbenova, 2024) with downstream revenue effects. Sectoral telecom studies further show how digitalization compels data-driven control loops; in this regard, corporate disclosures and public documentation from leading operators are valuable inputs for benchmarking and validation (Kyivstar PJSC; VoliaKabel LLC; PrJSC “Datagroup”; LLC “NashNet”).

Despite substantive advances and growing formalization of Internet-marketing metrics, the literature recognizes the need for standardized, integrative models that (i) reconcile strategic, financial, and behavioral indicators within interoperable application stacks; (ii) accommodate rapid shifts in consumer behavior through personalization and automation; and (iii) embed e-commerce dynamics and privacy-by-design data governance into routine managerial control. Advancing such models—grounded in transparent KPI hierarchies, sector-specific constraints, and comparable data sources – remains a priority for scholars and practitioners seeking replicable, decision-useful assessment of marketing effectiveness (Bradulov & Ordynskyi, 2020; Vynohradova et al., 2024; Frolova & Nosova, 2019; Romashchenko et al., 2025).

Aims. The article aims to systematize scientific approaches to assessing Internet marketing effectiveness and to justify an integrated indicator – the EMD (Efficiency of Marketing in Digital) – that aggregates financial, behavioral, and perceptual metrics for comprehensive evaluation and inter-firm comparison.

Methodology. Within the framework of this study, a comparative analysis of Internet marketing strategies employed by selected companies was conducted for the period 2022–2024. The evaluation was based on publicly available reports, open data from advertising platforms (such as Google Ads and Meta Business Suite), as well as secondary analysis of information presented in industry-specific marketing research reports.

The primary objective of this article is to systematize and critically analyze scientific approaches to evaluating the effectiveness of enterprises' marketing activities, while substantiating the relevance of implementing modern Internet marketing metrics (including KPI, ROI, CLV, CAC) in the context of economic digital transformation. The focus of this research is the need to adapt evaluation tools to the changing patterns of consumer behavior, the increasing importance of personalized

communications, and the extensive use of digital channels as a foundation for building sustainable competitive advantages.

The research methodology is based on a combination of quantitative and qualitative analysis methods. Quantitative methods involved the calculation and normalization of key performance indicators (KPIs), such as ROI, CLV, CAC, CR, RR, and NPS. These indicators were selected for their relevance in evaluating the financial, behavioral, and qualitative aspects of Internet marketing activities. Qualitative analysis involved the expert interpretation of results, taking into account the specifics of each company's market positioning and strategic goals.

Additionally, to validate the practical applicability of the proposed approach, an integral indicator - EMD (Efficiency of Marketing in Digital) - was introduced. This composite metric combines multiple KPIs into a single evaluation index, reflecting both financial outcomes and customer engagement.

Data normalization was performed to ensure comparability of indicators across different companies, and weight coefficients (w1, w2, ..., wn) were assigned to reflect the relative importance of each metric within the overall EMD calculation.

This methodology enables a comprehensive, objective, and scalable evaluation of Internet marketing effectiveness, supporting strategic decision-making and optimization of marketing resources.

Results. The current conditions of digital transformation in the business environment are fundamentally changing traditional paradigms of marketing activity management within enterprises. The active implementation of digital technologies, the growing volume of data, automation of customer communications, and heightened demands for personalized consumer engagement necessitate the adaptation of marketing strategies to new realities. Consequently, the need to revise and improve existing approaches to evaluating marketing effectiveness, especially within the digital environment, has become increasingly relevant.

Internet marketing, as a key vector of corporate communication in the 21st century, requires the use of advanced tools for measuring performance outcomes. This involves not only monitoring financial results but also conducting in-depth behavioral analytics to better understand customer motivations, preferences, and expectations in real time. Therefore, traditional approaches to evaluating marketing effectiveness - largely based on general financial and economic indicators - are gradually being replaced by comprehensive performance management systems built around Key Performance Indicators (KPI).

In the context of digital transformation, there is an increasing need for a systematic approach to measuring the performance of marketing tools. The rapid development of online communications, growing competitive pressure, dynamic consumer expectations, and the high cost of erroneous decisions make accurate and well-founded evaluation of marketing initiatives essential. In the modern digital environment, the use of quantitative indicators is a prerequisite not only for controlling expenses but also for enhancing the strategic manageability of marketing efforts. For this reason, particular attention is given to metrics that provide a holistic, analytically justified picture of marketing performance.

Key indicators enable an objective and multidimensional analysis of marketing effectiveness (Figure 1).

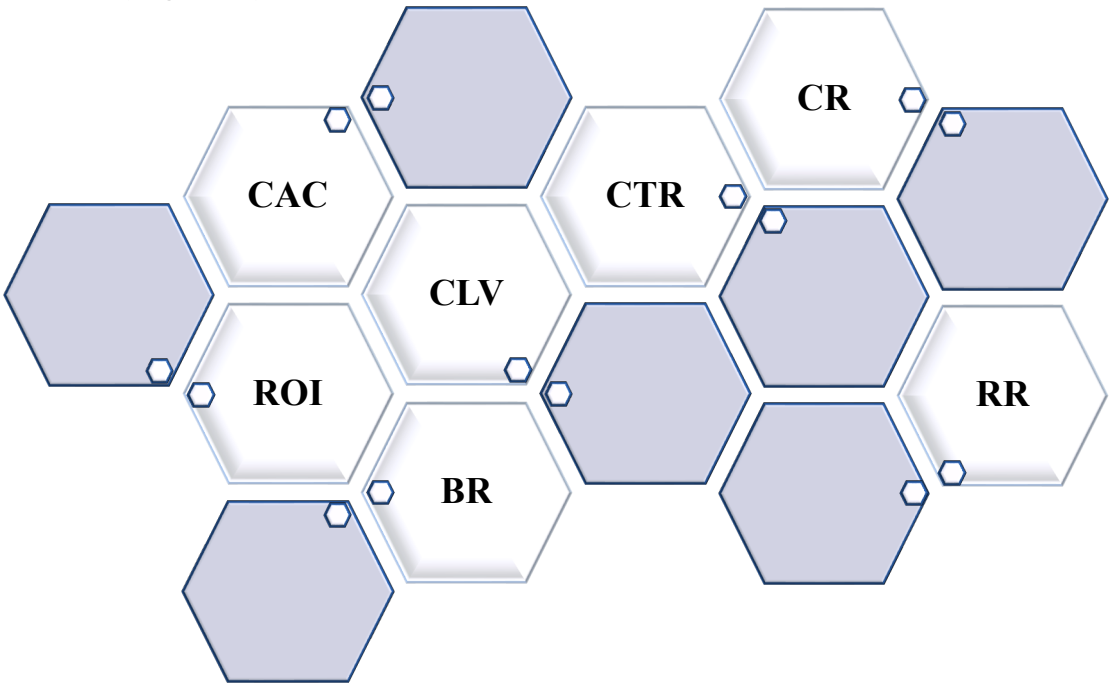

Figure 1. Key Performance Indicators of Marketing Activity Effectiveness
Source: compiled by the authors

Among the most important metrics are:

ROI (Return on Investment) – one of the fundamental financial indicators demonstrating the profitability level of marketing investments. It is calculated as the ratio of profit generated from a marketing campaign to the associated costs. A high ROI indicates efficient budget utilization and the effectiveness of the selected promotion strategy.

CLV (Customer Lifetime Value) – a metric that evaluates the total revenue a company earns from a single customer over the entire duration of their relationship. This indicator emphasizes the long-term perspective of marketing actions, highlighting the importance of customer retention programs, loyalty initiatives, and after-sales service.

CAC (Customer Acquisition Cost) – reflects the cost of acquiring one new customer. CAC is calculated as the ratio of total marketing and sales expenses to the number of new customers. By analyzing CAC in conjunction with CLV, businesses can assess the economic feasibility of various communication channels and optimize their promotion strategies.

CTR (Click-Through Rate) – the percentage of users who clicked on an advertisement after viewing it. This indicator helps evaluate the attractiveness of the advertising message, the relevance of creative content, and the effectiveness of the platform where the ad was placed.

CR (Conversion Rate) – the ratio of users who performed a target action (e.g., purchase or registration) to the total number of website visitors. This metric directly

indicates the effectiveness of landing pages, sales funnels, and content alignment with consumer needs.

RR (Retention Rate) – shows the company's ability to retain customers over a certain period. It is a critical indicator of business stability and the effectiveness of loyalty and repeat-sales initiatives.

BR (Bounce Rate) – the percentage of visitors who left the website after viewing only one page. A high bounce rate indicates issues with traffic relevance, low-quality content, or non-competitive offers.

A comprehensive analysis of these metrics allows for the creation of an effective marketing performance control system, real-time campaign adjustments, increased personalization levels, and, consequently, enhanced company competitiveness. Collectively, these indicators form a powerful analytical toolkit, essential for maintaining flexibility and strategic orientation in modern Internet marketing management. Therefore, implementing a KPI system tailored to the business specifics and target audience profile becomes a key element in building sustainable and results-driven marketing strategies.

In practice, effective evaluation of Internet marketing activities is based on the harmonious combination of financial and non-financial indicators. Successful companies integrate CRM systems, automated analytics platforms, A/B testing of advertising messages, and utilize gamification techniques, retargeting, customer segmentation, and personalized offers. This not only increases engagement levels with the target audience but also creates prerequisites for higher customer retention rates and repeat purchases.

However, the reality of Ukrainian business shows that many enterprises face numerous challenges when attempting to implement comprehensive marketing analytics systems. Key issues include low levels of digital maturity, limited resources, lack of a unified information environment, data fragmentation, and the absence of clear algorithms for KPI formation and application. As a result, this leads to inefficient allocation of marketing budgets and reduced competitive potential.

In the context of this practical study, the marketing performance of leading companies in Ukraine's telecommunications market - Kyivstar, Volia-Kabel, DataGroup, and NashNet - was analyzed. Metrics such as ROI of advertising campaigns, CLV/CAC ratio, retention rate dynamics, levels of personalized solutions implementation, and automation platform utilization were examined. Comparative analysis demonstrated that providers investing in deep segmentation, personalization, and automation (Kyivstar, Volia-Kabel) showed better ROMI, CAC, and Retention Rate indicators. Meanwhile, companies focusing on price competition but lacking robust marketing analytics lagged in long-term Customer Lifetime Value (CLV) and Net Promoter Score (NPS).

Therefore, modern marketing practice requires enterprises to adopt a new paradigm of marketing effectiveness assessment - integrated, dynamic, data-driven, and based on personalized interaction principles. Such approaches enable not only operational performance evaluation but also create a solid foundation for the long-term strategic development of businesses in a digitally competitive economy.

To ensure deeper and more objective analytics of Internet marketing performance, the study proposes the development and application of an integrated indicator—EMD (Efficiency of Marketing in Digital). This metric consolidates key Internet marketing indicators, namely CLV (Customer Lifetime Value), CAC (Customer Acquisition Cost), Conversion Rate (CR), Return on Investment (ROI), Retention Rate (RR), and Net Promoter Score (NPS).

The formula for calculating the EMD index is as follows:

$$EMD = w_1 * \left(\frac{CLV}{CAC}\right) + w_2 * CR \quad + w_3 * \left(\frac{ROI}{100}\right) + w_4 * RR \quad + w_5 * \left(\frac{NPS}{100}\right) (1)$$

where: EMD – Integrated efficiency evaluation of Internet marketing activities; CLV (Customer Lifetime Value) – Long-term customer value; CAC (Customer Acquisition Cost) – Cost of acquiring one customer; CR (Conversion Rate) – Conversion rate; ROI (Return on Investment) – Return on marketing investment (%); RR (Retention Rate) – Customer retention rate; NPS (Net Promoter Score) – Index of customer willingness to recommend the brand; w1, w2, ..., wn – Weight coefficients reflecting the significance of each indicator (with the sum of weights equal to 1).

The EMD acts as an aggregate index that integrates key financial, behavioral, and qualitative metrics of marketing activity, enabling the evaluation of its overall impact on business performance. The calculation of this indicator is based on a weighted average of normalized KPI values, scaled according to their importance and relevance to the enterprise's goals.

The CLV/CAC ratio reflects the economic efficiency of customer acquisition—higher values indicate more effective marketing budget utilization. CR shows the effectiveness of converting visitors into customers. ROI, normalized to a decimal by dividing by 100, reflects the profitability of marketing investments. RR highlights customer loyalty and revenue stability. NPS adds a qualitative assessment of customer satisfaction and brand capital.

To practically validate the applicability and relevance of the EMD indicator, the model was tested on four leading Ukrainian telecommunications operators: Kyivstar, Volia-Kabel, DataGroup, and NashNet. For each company, key Internet marketing performance metrics were collected and normalized (Table 1).

Table 1. Integrated Assessment of Internet Marketing Effectiveness

Company	CLV	CAC	CLV/ CAC	CR	ROI (%)	ROI (норм.)	RR	NPS	EMD
Kyivstar	7000	295	23,73	0,038	183	1,83	0,72	52	11,70
Volia-Kabel	6200	265	23,4	0,034	147	1,47	0,7	48	11,23
DataGroup	9000	390	23,08	0,056	132	1,32	0,69	54	11,43
NashNet	4800	170	28,24	0,031	127	1,27	0,64	46	11,77

Source: calculated by the authors based on [1]

The EMD calculation is based on normalized values of the key KPIs, weighted according to their relative importance within the overall Internet marketing effectiveness structure. This approach allows for objective comparison across companies and helps identify leaders based on cumulative marketing performance.

Visualization (Figure 2) clearly shows that NashNet achieved the highest EMD score, followed by Kyivstar, then DataGroup, and Volia-Kabel. This allows for a quick and intuitive comparison of overall marketing effectiveness using comprehensive digital metrics.

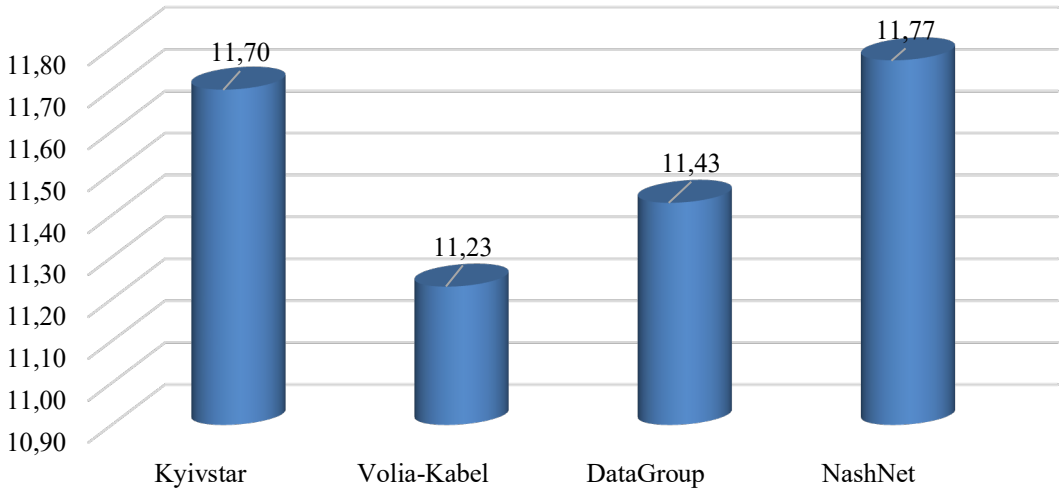

Figure 2. Graphical Interpretation of Integrated Internet Marketing Effectiveness Assessment

Source: compiled by the authors based on [1]

Based on weighted aggregation, the calculated EMD values for each company reflect their marketing performance across financial, behavioral, and qualitative dimensions. The results demonstrate that NashNet achieved the highest EMD score (11.77), indicating effective customer acquisition cost management combined with high customer value and satisfaction levels. Meanwhile, Kyivstar achieved an EMD of 11.70, confirming the stable marketing efficiency of this large operator with a significant market share. DataGroup showed a balanced result (11.43), mainly due to higher CR and moderate ROI. Volia-Kabel recorded the lowest EMD (11.23), primarily due to relatively lower customer retention and investment efficiency indicators.

The model testing confirmed its practical value for strategic analysis of Internet marketing performance. The use of the EMD indicator enables inter-company comparison, identification of best practices, and adjustment of marketing strategies in line with changing market conditions. The proposed approach is universal and can be adapted for evaluating Internet marketing effectiveness across other economic sectors.

The integral EMD model facilitates the transition from fragmented to comprehensive performance analysis, ensuring:

- Data aggregation from various sources (financial, digital, behavioral);
- Flexibility in model development according to business specifics;
- Informed strategic decision-making for marketing strategy adaptation;
- Enhanced transparency in planning, implementing, and controlling marketing activities;
- Timely detection of deviations and weaknesses in the marketing system.

Thus, the implementation of EMD as a consolidated analytical tool enables enterprises to manage their marketing activities more effectively, ensuring stable growth in profitability and competitiveness in the digital economy.

Conclusions. Internet marketing in the telecommunications sector requires the development of a clear, logically structured, and at the same time flexible analytics system oriented toward key performance indicators (KPIs). Such a system enables enterprises to respond promptly to changes in the market environment and to quickly adapt to shifts in consumer behavior.

The conducted analysis confirmed that companies actively implementing personalized marketing strategies, integrating modern CRM platforms, utilizing artificial intelligence (AI), and conducting multichannel analysis of customer behavior demonstrate higher levels of marketing effectiveness and achieve better financial outcomes.

The use of an integrated approach to evaluating Internet marketing performance based on key metrics such as ROI, CLV, CAC, Retention Rate, and NPS allows telecommunications enterprises to conduct deeper and more accurate analyses of the effectiveness of their marketing initiatives. The consolidation of these indicators into a single integral metric - EMD (Efficiency of Marketing in Digital) - provides a solid foundation for strategic management of marketing resources. This approach ensures an optimal balance between expenditures, revenues, and customer satisfaction levels.

The further evolution of the telecommunications market will not only require the refinement of analytical processes but also the active implementation of innovative tools such as predictive analytics, real-time content personalization, automated customer journey management platforms, and AI-based recommendation systems. The deployment of these technologies will contribute to higher conversion rates, reduced customer acquisition costs (CAC), and increased customer lifetime value (CLV).

Ultimately, the level of Internet marketing effectiveness among telecommunications companies will largely depend on their ability to implement modern digital analytics tools, optimize marketing budgets, develop personalized communication strategies, and ensure a high level of customer experience at all stages of interaction with the brand. The comprehensive application of these approaches will become a key prerequisite for enhancing the competitiveness of telecommunications operators in the conditions of digital economic transformation and increasing market competition.

Discussion. The findings of this study highlight the central role of integrated performance measurement systems in ensuring the strategic manageability of Internet marketing activities. The analysis confirms that relying solely on financial indicators such as ROI no longer provides a sufficient basis for decision-making in a digitalized economy. Instead, comprehensive frameworks that combine financial, behavioral, and perceptual metrics create a more objective and multidimensional understanding of marketing effectiveness.

The introduction of the EMD (Efficiency of Marketing in Digital) indicator demonstrates that aggregating KPIs such as CLV, CAC, CR, ROI, RR, and NPS provides an effective mechanism for capturing both short-term efficiency and long-

term sustainability of marketing activities. Empirical testing across Ukrainian telecommunications firms revealed that companies with advanced personalization, segmentation, and automation strategies achieve higher EMD scores and thus outperform competitors in customer retention and brand loyalty. This confirms that marketing effectiveness increasingly depends on the degree of digital maturity, data integration, and the capacity to translate analytics into actionable strategies.

At the same time, the comparative analysis revealed structural barriers in Ukraine's business environment, including data fragmentation, insufficient investment in CRM platforms, and the absence of unified methodological standards. These gaps constrain the ability of companies to systematically evaluate outcomes and align them with strategic goals. The study thus illustrates both the opportunities and challenges associated with adopting advanced performance evaluation models: while integrated indicators enable transparency and benchmarking, their effective application requires infrastructure, skills, and governance reforms.

Conclusion. This research demonstrates that Internet marketing effectiveness cannot be adequately assessed without integrated and multidimensional approaches. The EMD indicator proposed in the study consolidates financial, behavioral, and qualitative dimensions of marketing activity into a single, scalable index. Its application not only enables objective inter-firm comparison but also supports real-time strategic decision-making, resource optimization, and the identification of best practices.

The results confirm that companies investing in advanced digital tools, personalization technologies, and CRM-driven customer strategies achieve significantly higher performance outcomes. Conversely, reliance on narrow cost-based competition without robust analytics limits long-term customer value and erodes competitiveness.

Future perspectives include expanding the application of the EMD framework to other sectors beyond telecommunications, validating its cross-national applicability, and exploring predictive models that integrate AI-based personalization, automated customer journey management, and GDPR-compliant data practices. Such advancements will allow companies to not only measure effectiveness but also anticipate trends, allocate resources proactively, and sustain competitive advantage in the evolving digital economy.

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