CED-2026
International Scientific Conference
29 October 2026, Kharkiv
Hybrid round-table: *A Reset World: Resilience, Innovation, and New Development Trajectories*

Digital Marketing Transformation in European Enterprises
A Comparative Assessment of Observable Capabilities in International Markets

Parkhomenko N., Mishyn O., Vilčeková L., Otenko I. & Ivashchenko H.
Simon Kuznets Kharkiv National University of Economics · Comenius University Bratislava

Study at a Glance

25

European Enterprises

Purposively selected across industries and internationalization levels

20

Indicators

Grouped into eight dimensions of digital marketing transformation

8

Dimensions

From digital presence to AI and emerging technologies

DMTI

Core Framework

Digital Marketing Transformation Index — 0 to 100 scale

The study develops and applies a comparative framework for assessing **publicly observable** digital marketing transformation capabilities among European enterprises operating in international markets, using exclusively secondary data and corporate public sources.

Why This Research Matters

Digital transformation increasingly extends beyond individual technologies to reshape business processes, customer engagement, and value creation. Marketing is especially affected — enterprises now leverage digital channels, data analytics, social media, e-commerce, AI, and personalized communication.

Internationalization Pressure

Enterprises operating across national markets must respond to differences in consumer preferences, cultural environments, and competitive conditions. Digital tools help overcome these barriers.

Uncertainty & Disruption

Digital tools improve market responsiveness under economic uncertainty and geopolitical instability. However, technology adoption alone does not guarantee competitive advantage.

Research Gap

Further research is needed on how marketing transformation specifically contributes to enterprise competitiveness in international markets using transparent, observable indicators.

Theoretical Foundations

Digital Transformation Frameworks

Broad frameworks explain how digital technologies trigger organizational and strategic change (Vial, 2019; Verhoef et al., 2021). The dynamic capabilities perspective emphasizes sensing opportunities, seizing them, and transforming the resource base (Warner & Wäger, 2019).

Social media, mobile, e-commerce, automation, analytics, and AI have made marketing increasingly **interactive, data-driven, and personalized**.

Customer Journey & Value Creation

Lemon & Verhoef (2016) show that growing digital touchpoints transformed the customer journey, increasing the importance of consistent cross-channel experiences. Customers have become active participants through reviews, social media, and user-generated content.

Competitiveness

Porter (1985) emphasizes value through activities difficult to replicate. In digital markets, this involves integrating technology, customer knowledge, data, and organizational resources.

The Role of AI in Digital Marketing



Customer Intelligence

AI supports segmentation, recommendation systems, predictive analytics, and improved customer insights (Davenport et al., 2020).



Automation & Content

Generative AI enables adaptive content creation, chatbots, personalized communication, and marketing automation at scale.



International Adaptation

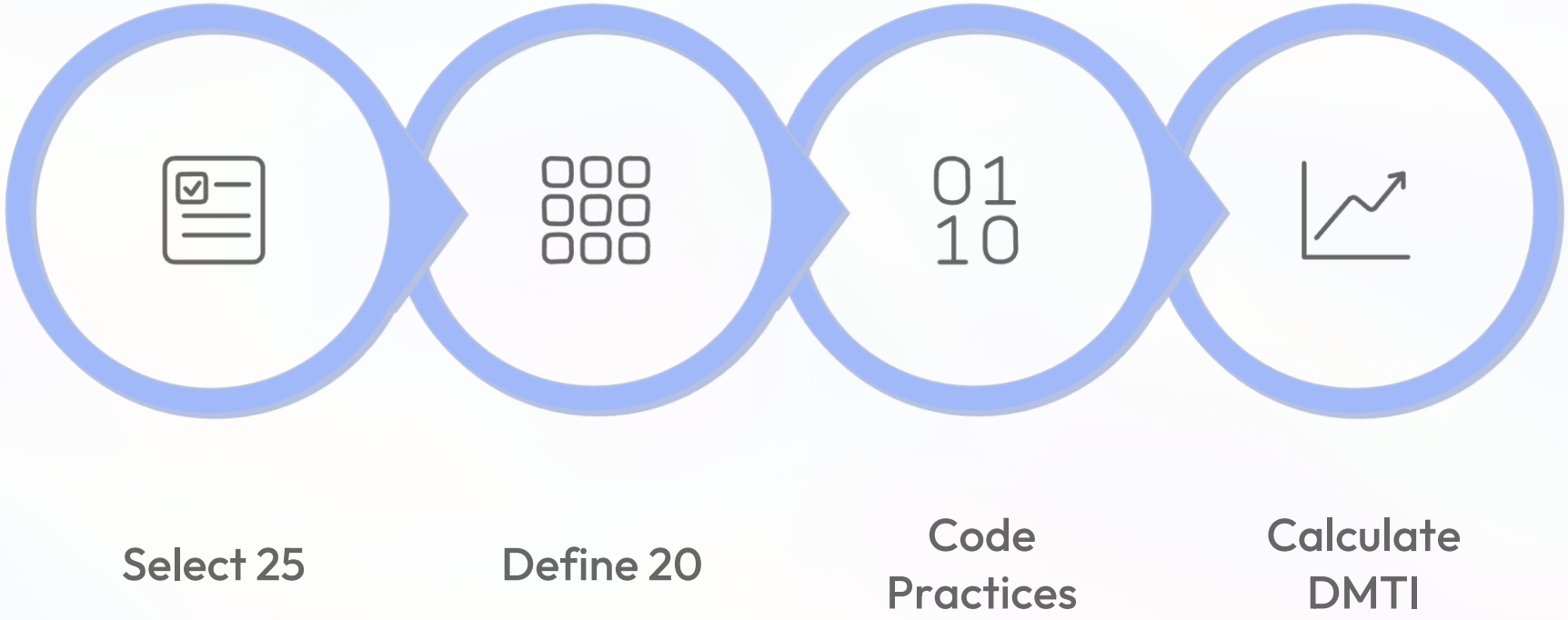
AI facilitates content and communication adaptation across languages, customer segments, and national markets.



The competitive value of AI depends on integration into existing marketing processes and organizational capabilities — not technology adoption alone.

Methodology: Research Design

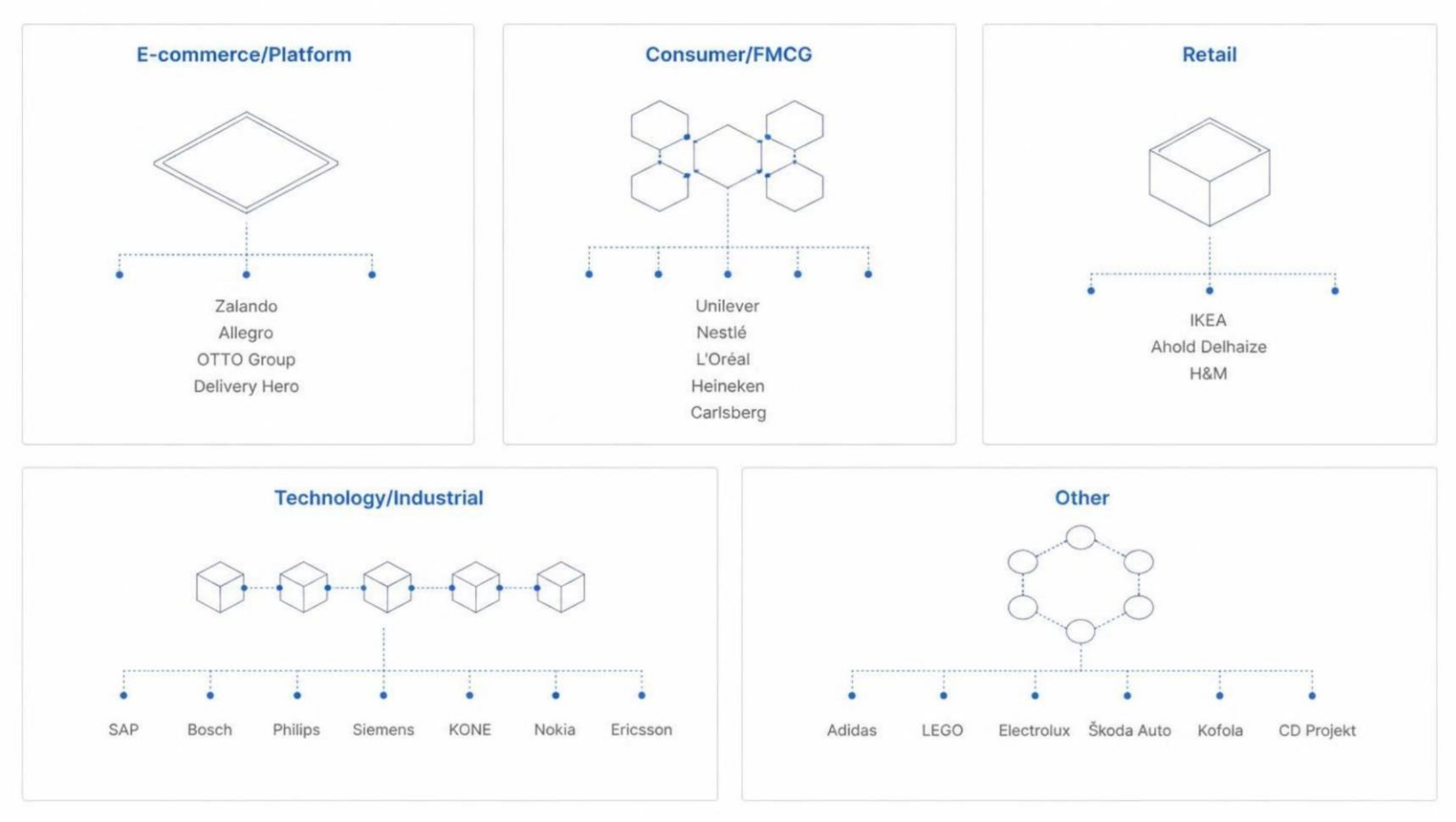
The study applies a **comparative exploratory research design** based exclusively on secondary data and publicly available corporate information — corporate websites, annual and sustainability reports, investor-relations materials, social media accounts, and e-commerce platforms.



Official company sources were prioritized. Third-party sources were used only to clarify observable practices and were not treated as primary evidence when an official corporate source was available. The observation period covers primarily 2025–2026.

The Sample: 25 European Enterprises

The sample spans multiple industries and internationalization levels — from globally operating corporations to companies with primarily European activities.



Selection criterion: sufficient public information to assess digital marketing practices and international digital presence.

The DMTI Framework: 8 Dimensions, 20 Indicators



Calculating the DMTI

Index Formula

$$DMTI_j = \left(\sum_{i=1}^{20} x_{ij} \div 20 \right) \times 100$$

Where **DMTIj** is the index for enterprise *j*; **xij** equals 1 if indicator *i* is observed for enterprise *j* and 0 otherwise. All indicators receive **equal weights**. Each observed indicator contributes **5 points**; the index ranges from 0 to 100.

Coding Procedure

- **1** — practice supported by observable evidence
- **0** — practice not identified after source-checking
- **NA** — insufficient information for reliable determination

Equal weighting was adopted as a transparent baseline. It does not imply all practices have the same strategic importance.

Overall DMTI Results

91.6

Average DMTI

Sample mean score, indicating broadly high digital marketing transformation

100

Median DMTI

Concentration of observations at the upper end of the scale

17

Perfect Scorers

Enterprises achieving 100 points: Adidas, Zalando, IKEA, Nestlé, SAP, and 12 others

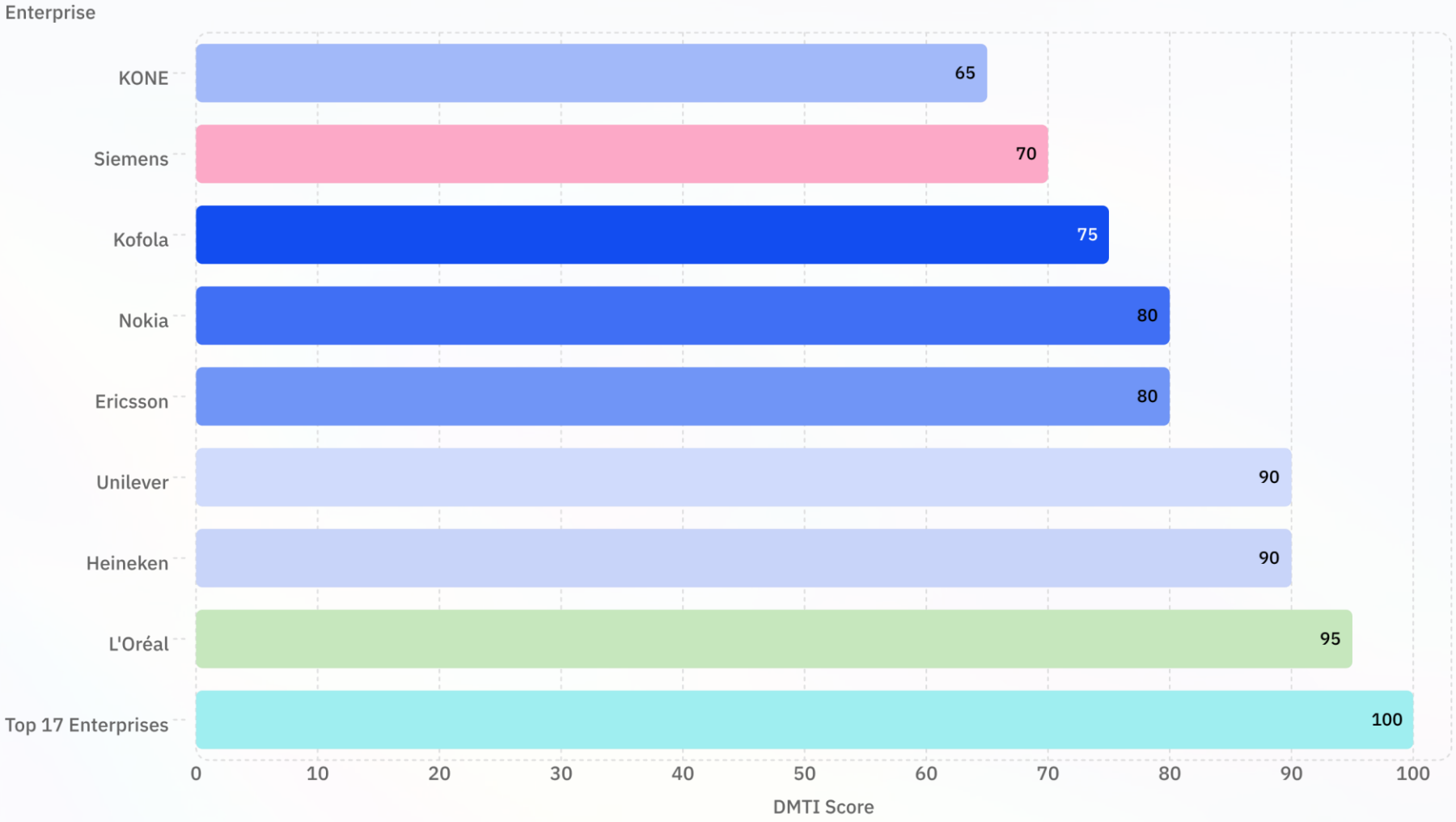
65–100

Score Range

Even the lowest-scoring enterprise demonstrates a substantial set of digital practices

L'Oréal achieved 95 points; Heineken and Unilever reached 90 points. Ericsson and Nokia recorded 80 points, Kofola 75 points, Siemens 70 points, and KONE 65 points.

DMTI Score Distribution



The concentration of scores at 100 indicates that basic-to-advanced digital marketing practices have become integral to international marketing among European enterprises. Lower scores among B2B/industrial firms reflect business model differences, not absence of digital transformation.

Digital Presence & Social Media: The New Baseline

Digital presence indicators show the **highest convergence** across the sample. Corporate websites, mobile-accessible interfaces, multilingual communication, and international market pages constitute the basic infrastructure of digital marketing.

Beyond Information

Websites now support product discovery, customer interaction, transactions, service provision, and market adaptation — not just corporate information.

Social Media Integration

Enterprises use social platforms for brand communication, product presentation, customer engagement, campaign activation, and content distribution — not just announcements.

Structural Integration

Social media has become structurally integrated into international marketing communication. The coding framework distinguishes platform presence, content activity, and observable customer interaction.

E-Commerce: The Sharpest Business Model Divide

Consumer & Platform Leaders

E-commerce is central to **Zalando, Allegro, OTTO Group, Delivery Hero, IKEA, Adidas, Ahold Delhaize,** and **H&M**. These companies combine digital product presentation with online purchasing, electronic payment, logistics, and international digital sales.

Zalando represents an especially advanced model: e-commerce integrated with personalized discovery, AI-supported search, recommendations, and digital customer assistance.

B2B & Industrial Enterprises

For **Siemens, KONE, Nokia,** and **Ericsson**, conventional online purchasing is less central. Digital marketing transformation is instead reflected in customer interfaces, automated communication, analytics, platforms, and AI-supported customer journeys.

Lower e-commerce visibility reflects **business model characteristics**, not an absence of digital transformation.

Personalization: From Standardized to Individualized

Personalization represents one of the most important qualitative developments in the analysis — a transition from standardized communication toward individualized offers, recommendations, content, and customer experiences.



Zalando

AI-supported product discovery, personalized recommendations, customer-specific experiences, and the Zalando Assistant.



IKEA

Customer data applied to tailored content, product recommendations, targeted offers, and personalized marketing communication.



Ahold Delhaize

Personalized offers combined with recommendations and customer app functionality.

Data-Driven Marketing & AI Integration

The results demonstrate a strong movement toward data-driven marketing and AI-supported activities, particularly visible in companies with large international customer bases.



Nestlé

Applies marketing mix modelling and AI-supported analytics to improve marketing and commercial decision-making.



Unilever

Integrated AI and automation into marketing content creation and brand development.



L'Oréal

Developed AI-supported approaches to generate and adapt digital beauty content and personalize consumer experiences.



Zalando, Bosch, SAP & Others

AI applied to recommendation systems, content creation, customer assistance, product discovery, analytics, and campaign optimization.

Digital Marketing Transformation by Business Model

Business Model	Dominant Digital Mechanisms	Representative Enterprises
E-Commerce / Platform	Online transactions, personalization, recommendation, analytics, AI	Zalando, Allegro, OTTO Group, Delivery Hero
Consumer / FMCG	Social media, digital commerce, personalization, AI-supported content	Unilever, Nestlé, L'Oréal, Heineken, Carlsberg
Retail	Omnichannel, e-commerce, personalization, customer apps	IKEA, Ahold Delhaize, H&M
Technology / Software	AI, analytics, automation, digital customer journey, platforms	SAP, Bosch, Philips
Industrial / B2B	Customer analytics, digital platforms, automated communication, AI	Siemens, KONE, Nokia, Ericsson
Automotive	Digital customer services, apps, personalization, AI interaction	Škoda Auto

Key Finding: Integrated Digital Ecosystems

Digital transformation should be understood as an integrated organizational process rather than the adoption of individual technologies. The coexistence of AI, analytics, personalization, digital commerce, automated communication, and international digital content indicates a transition from isolated digital tools toward increasingly interconnected digital marketing ecosystems.

Breadth, Not Binary

Enterprises differ in the depth and configuration of digital capabilities — not simply 'digital' vs. 'non-digital'.

Context Matters

DMTI scores must be interpreted alongside business model and market context, not as a universal ranking.

No Direct Causality

The DMTI identifies observable capability breadth that *may* support competitive positioning — it does not prove causal financial effects.

Discussion: What the Results Tell Us

Consistent with Theory

DMTI scores (65–100) are consistent with Vial's (2019) conceptualization of digital transformation as broad organizational change. High scores reflect the **breadth of documented practices**, not a direct measure of effectiveness or strategic maturity.

The coexistence of analytics, automation, and AI can be interpreted through the dynamic capabilities perspective — firms sensing, responding to, and reconfiguring resources (Warner & Wäger, 2019).

Consumer vs. B2B Distinction

Consumer-oriented firms demonstrate more visible digital customer journeys and online commercial interactions. Industrial and B2B firms rely more heavily on analytics, digital platforms, and automated communication.

Therefore, the lower visibility of a particular digital channel should **not** automatically be interpreted as lower overall digital transformation.

Limitations & Future Research

1 Disclosure Bias

Publicly available information may reflect differences in disclosure practices rather than actual technological capabilities. Absence of observable evidence ≠ absence of the capability.

2 Breadth vs. Effectiveness

The DMTI captures the breadth of observable practices, not their quality, intensity, or economic effects. It does not directly measure sales growth, profitability, market share, or customer lifetime value.

3 Cross-Sectional Design

The study limits conclusions about change over time. Future research should combine the index with longitudinal evidence and objective indicators of customer engagement, market position, and financial performance.

Conclusions & Contributions

High Transformation Breadth

DMTI ranged from 65 to 100 (avg. 91.6), indicating broadly high observable digital marketing practices across 25 European enterprises.

Combined Capabilities

Transformation increasingly involves combining digital channels, personalization, customer-data utilization, analytics, automation, and AI — not isolated tools.

Business Model Context

Consumer/platform firms show broader customer journey digitalization; B2B/industrial firms emphasize analytics, platforms, and automated communication.

DMTI Framework

A multidimensional index of 20 indicators across 8 dimensions provides a transparent, replicable basis for comparing observable digital marketing capabilities across enterprises and business models.