TRANSFORMING B2B MARKETING THROUGH DATA-DRIVEN DECISION-MAKING: THE CASE OF ALCOMET IN THE EUROPEAN ALUMINIUM INDUSTRY*

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ABSTRACT: *The accelerating digital transformation of business has increased the strategic importance of data-driven decision-making (DDDM) across industries. Its adoption in traditional business-to-business (B2B) manufacturing, however, remains uneven, as marketing decisions continue to rely substantially on established customer relationships, managerial experience and conventional market segmentation. This paper examines the potential of DDDM to transform B2B marketing and strengthen competitive positioning in the European aluminium industry, using Alcomet AD, a Bulgarian producer of rolled and extruded aluminium products, as the applied business context. The study integrates the theoretical foundations of data-driven marketing with secondary company and industry evidence and proposes a structured B2B customer survey as an empirical data-acquisition instrument. The proposed methodology provides a foundation for subsequent empirical testing in Alcomet or comparable industrial B2B companies.*

KEYWORDS: *data-driven decision-making; data-driven marketing; B2B marketing; customer survey; marketing analytics; aluminium industry; customer segmentation; competitive advantage.*
JEL: *M31, C61, C83, M15*

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1 Introduction

Digital transformation has changed the informational basis of marketing decision-making. Transactional records, customer interactions, operational data and external market intelligence can increasingly be integrated to support evidence-based decisions. Data-driven decision-making does not eliminate managerial experience, rather, it complements judgement with systematic evidence and creates a repeatable process for learning from customers and markets [6],[2].

The issue is particularly relevant in industrial B2B markets, where commercial decisions are embedded in long-term relationships, technical product requirements, negotiated prices and payment conditions, supply reliability and relatively concentrated customer portfolios. In these markets, broad segmentation by geography or industry may not adequately capture differences in customer value, purchasing priorities, growth potential, sustainability expectations or switching risk. Marketing analytics can therefore provide value by integrating company characteristics, behavioural, transactional and attitudinal customer information [3],[10],[13].

The European aluminium industry provides an appropriate setting for this discussion. It operates within global supply and price dynamics while simultaneously facing regional energy, regulatory and decarbonisation pressures. CRU estimates European primary aluminium consumption at approximately 8.39 million tonnes in 2026, compared with 75.73 million tonnes globally[4]. Wood Mackenzie examines tariffs, changes in Chinese export incentives, CBAM, demand, energy transition and supply conditions as factors reshaping the market. These

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conditions increase the importance of timely customer-level information rather than reliance on aggregate market indicators alone[11].

The purpose of the study is to examine how DDDM can transform B2B marketing in the European aluminium industry and to develop an applied framework for Alcomet AD. The research question is: How can systematic customer data collection and analysis support data-driven B2B marketing decision-making and customer segmentation in the European aluminium industry? The study combines literature review, secondary company and industry analysis and the design of a proposed quantitative customer survey. Because the survey has not yet been administered, no survey findings are reported; the questionnaire and analytical plan constitute a proposed empirical methodology for subsequent research.

2 Data-driven decision-making in B2B marketing

DDDM refers to the systematic use of relevant data and analytical methods in organisational decisions. Elragal and Elgendy conceptualise readiness for DDDM through interconnected dimensions including decision processes, data, analytics, information systems and specialised roles[6]. This is important for industrial marketing because technology alone cannot create an analytical capability. Data quality, integration, skills and organisational routines determine whether information can be converted into action.

Marketing research similarly distinguishes between data resources and capabilities. Cao et al.[3] connect big data and marketing analytics with broader marketing capabilities, while Suoniemi et al. [13] show that market-directed capabilities are important in translating data resources into company performance. In manufacturing organisations, the integration challenge is particularly visible because product, customer and operational information may be dispersed across R&D, production, sales and service functions [8].

For B2B companies, four capabilities are especially relevant. CRM analytics creates an integrated account view from interactions, quotations, orders and relationship history [10]. Segmentation distinguishes customers according to economically and strategically meaningful variables [12]. Predictive analytics introduces a forward-looking perspective for demand, retention and opportunity assessment. Performance measurement closes the learning cycle by linking interventions to customer and commercial outcomes. Customer-value logic further suggests that acquisition and retention resources should be allocated according to expected customer value rather than uniformly across accounts [9].

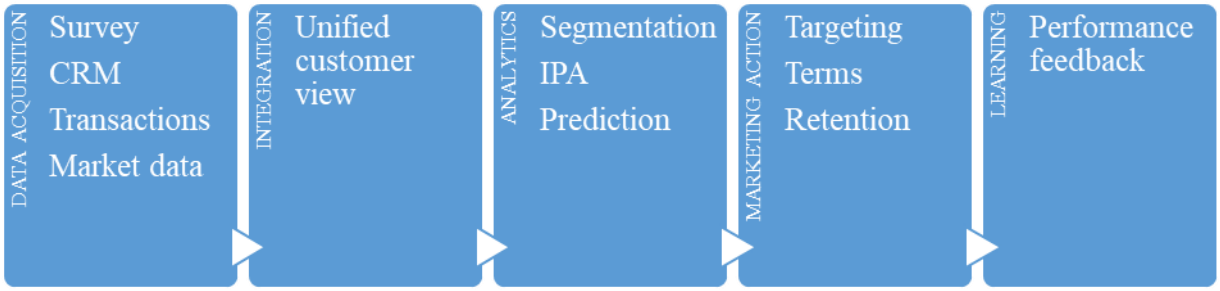


Figure 1. Data-driven B2B marketing transformation logic

3 Alcomet and the European aluminium context

Alcomet AD is used as the applied business context because its activity combines product diversity, industrial customer relationships and extensive exposure to international markets. The company produces rolled and extruded aluminium products serving multiple applications. Its 2024 sustainability report indicates BGN 512 million in revenue and total sales volume of 72,684 metric tonnes. The same report shows divergent product dynamics: rolled-product sales volume

increased from 33,043 tonnes in 2023 to 49,085 tonnes in 2024, whereas extruded-product volume decreased from 25,342 to 23,599 tonnes [1].

Such differences demonstrate why aggregate market growth is insufficient for B2B decision-making. Customers with similar annual volumes may have very different profitability, payment preferences, technical requirements, sustainability expectations or growth potential. Similarly, demand may develop differently by product group, application and geography. A data-driven approach therefore requires customer-level evidence that can be combined with transaction and market data.

The flat-rolled market also illustrates heterogeneous end-use demand. Towards Chemical and Materials [14] estimates that Europe represented 20.11% of global aluminium flat-product volume in 2025 and identifies packaging as the largest end-use segment. The report also points to recycling, decarbonisation, automotive lightweighting and substitution trends. These are commercial market estimates rather than independent academic evidence, but they illustrate external signals that can be incorporated into customer and market analysis.

4 Proposed research methodology and B2B customer survey

The empirical extension of the study is designed as a cross-sectional B2B customer survey based on the revised 18-question instrument developed for customers in the aluminium industry. The target population comprises organisational customers purchasing aluminium products from Alcomet or, if the study is extended comparatively, customers of other aluminium manufacturers. Appropriate respondents include purchasing and procurement managers, supply-chain managers, technical managers, commercial managers and other organisational decision-makers involved in supplier selection and purchasing.

The revised questionnaire covers ten analytical domains (Table 1).

Table 1

Proposed customer survey constructs and marketing applications

Construct	Variables in the revised survey	Data-driven marketing use
Customer profile	Country, industry, employees, annual aluminium purchasing-volume category, relationship length	Company characteristics and account segmentation
Purchase priorities	13 supplier-selection attributes rated for importance	Needs-based segmentation / IPA
Supplier performance	The same 13 attributes rated for current principal supplier	Performance gaps and improvement priorities
Payment sensitivity	Importance/performance of payment terms; willingness to accept higher price for more favourable terms	Commercial sensitivity / price-payment trade-off
Relationship quality	Satisfaction, trust, understanding, communication, problem resolution, tailored solutions, market/product information	CRM and relationship analytics
Loyalty / switching	Intention to continue purchasing; reasons that could trigger supplier change	Retention and switching-risk analysis
Future demand	Expected change in purchasing volume over next 12–24 months	Demand-oriented account planning
Sustainability	Recycled content, low-carbon production, carbon footprint, renewable energy, traceability, certification, circularity, CBAM information	Sustainability value proposition
Digital interaction	Preferred channels; value of nine digital/data services	Digital CRM and service development
Overall/open feedback	Overall satisfaction; desired improvement; additional value-creating offer/condition	Qualitative insight and priority setting

Most evaluative items use five-point scales. Importantly, supplier-selection criteria and supplier performance are measured with the same set of attributes—product quality, price competitiveness, delivery reliability, lead time, technical support, customisation, order flexibility, speed of response, long-term relationship, payment terms, sustainability performance, recycled content and carbon-footprint transparency. This parallel design enables direct comparison between what customers consider important and how they evaluate their principal supplier.

Payment terms are retained as a specifically B2B commercial variable. Payment terms appear first as one of the supplier-selection and supplier-performance attributes. In addition, one of the questions asks whether the respondent would accept a higher price in exchange for more favourable payment terms, using a five-category response from 'Definitely not' to 'Definitely yes'. The instrument therefore measures the perceived value of favourable payment conditions and the trade-off between price and payment flexibility. It does not ask respondents to disclose their current credit period or to choose between cash in advance and specific 30-, 60- or 90-day credit terms; consequently, those categories should not be presented as observed variables in the methodology.

The revised survey captures future demand through the expected direction of aluminium purchasing volume over the next 12–24 months, from significant decrease to significant increase, with a 'Cannot predict' option. Sustainability is assessed through the importance of recycled content, low-carbon production, verified product carbon footprint, renewable energy use, traceability, environmental certification, circularity/recyclability and CBAM-related information. Digital needs are measured through preferred communication channels and the perceived value of services such as real-time order tracking, online quotation requests, digital technical documentation, product-availability information, personalised pricing information, market-price updates, carbon-footprint data, a purchasing-history dashboard and demand-forecasting support. Two open questions capture desired supplier improvements and additional products, services, information or commercial conditions that would create value.

To complement the proposed B2B customer survey, the study uses Google Analytics reports for the Alcomet BG and Alcomet EU website properties. These records provide an illustrative empirical baseline, not a measure of present-day website performance. The properties are reported separately because their audiences and tracking configurations may differ.

The resulting data-driven workflow is: digital traffic and content signals; geographic/content prioritisation; customer survey and CRM validation; estimated campaign response and account value; optimisation; monitored commercial outcomes. For a future simplex allocation model, geographic traffic can identify candidate markets, but response-per-euro coefficients and minimum/maximum campaign allocations must come from campaign experiments or verified CRM records. The optimisation below therefore remains an explicitly hypothetical illustration.

5 Illustrative simplex optimisation of B2B marketing incentives

This section completes the data-driven workflow with a prescriptive step. The simplex method [5] is used because the allocation of a limited incentive budget among competing commercial instruments is a typical resource-allocation problem: a linear objective is maximised subject to linear budget, policy and capacity constraints. Linear programming has a long record in marketing resource allocation, notably in advertising-media selection Engel at al, and Baardman at al. review the broader role of optimisation in data-driven decision-making[7], [2]. In this framework, descriptive and survey analytics supply the model parameters, and the optimisation model converts them into an explicit allocation decision.

All numerical values below are hypothetical and were chosen solely to demonstrate the procedure. They are not Alcomet data, survey results or estimates derived from the Google Analytics reports, and the outcome must not be read as a forecast or a recommendation. In an empirical application, the coefficients and limits would be estimated from campaign experiments and verified CRM and transaction records.

Model formulation. Assume a hypothetical incentive budget of EUR 100 thousand for one planning period and three instruments, each linked to a construct of the proposed survey (Table 1). Let x1 denote payment-flexibility incentives (for example, early-payment discounts or extended-term offers), linked to the price–payment trade-off item; x2 denote volume and loyalty rebates for existing key accounts, linked to the loyalty and switching domain; and x3 denote a sustainability and digital-service package (for example, carbon-footprint and CBAM documentation, order tracking), linked to the sustainability and digital-interaction domains. All decision variables are expressed in EUR thousand. The objective is to maximise the expected incremental contribution margin Z (EUR thousand):

$$maximise\ \ Z = 1.40x_1 + 1.20x_2 + 1.80x_3 \qquad (1)$$

subject to:

(1) $x_1 + x_2 + x_3 \leq 100$ [budget]

(2) $x_1 \leq 35$ [credit-risk cap on payment incentives (35% of the budget)]

(3) $x_3 \leq 50$ [delivery capacity of the sustainability and digital-service package]

(4) $0.5x_1 + 1.0x_2 + 0.4x_3 \leq 50$ [account-management capacity (days)]

$x_1, x_2, x_3 \geq 0$ [non-negativity]

Table 2 summarises the assumed parameters. The objective coefficients represent the expected incremental contribution margin generated per EUR 1 of incentive deployed (gross of the incentive itself, which enters the model through the budget constraint). The final column gives the account-management days consumed per EUR 1,000 deployed.

Table 2

Hypothetical parameters of the incentive-allocation model

Instrument	Survey construct (Table 1)	Contribution per EUR 1	Upper limit (EUR thousand)	Account-management days per EUR 1,000
x_1 Payment-flexibility incentives	Payment sensitivity	1.40	35	0.5
x_2 Volume and loyalty rebates	Loyalty / switching	1.20	none (budget only)	1.0
x_3 Sustainability and digital-service package	Sustainability; digital interaction	1.80	50	0.4
Total available			Budget: 100	Capacity: 50 days

Simplex procedure. Because all constraints are of the ≤ type with non-negative right-hand sides, adding one slack variable to each constraint (s1–s4) yields an initial basic feasible solution at the origin (x1 = x2 = x3 = 0, Z = 0) without artificial variables. At each iteration the variable with the most negative coefficient in the objective row enters the basis, the minimum-ratio test determines the leaving variable, and the tableau is pivoted. The procedure stops when no negative coefficient remains. Table 3 summarises the three iterations required.

Table 3

Simplex iterations for the hypothetical model

Iteration	Entering variable (objective-row coefficient)	Leaving variable (minimum ratio)	Basic solution after the pivot	Z (EUR thousand)
0	–	–	$s_1 = 100$, $s_2 = 35$, $s_3 = 50$, $s_4 = 50$	0.00
1	x_3 (−1.80)	s_3 (50/1 = 50; others 100 and 125)	$x_3 = 50$; $s_1 = 50$, $s_2 = 35$, $s_4 = 30$	90.00
2	x_1 (−1.40)	s_2 (35/1 = 35; others 50 and 60)	$x_1 = 35$, $x_3 = 50$; $s_1 = 15$, $s_4 = 12.5$	139.00
3	x_2 (−1.20)	s_4 (12.5/1 = 12.5; other 15)	$x_1 = 35$, $x_2 = 12.5$, $x_3 = 50$; $s_1 = 2.5$	154.00

The final table (Table 4) contains no negative coefficient in the objective row, so the solution is optimal. The optimal plan allocates EUR 35 thousand to payment-flexibility incentives, EUR 12.5 thousand to volume and loyalty rebates and EUR 50 thousand to the sustainability and digital-service package, giving an expected incremental contribution margin of EUR 154 thousand. Of the EUR 100 thousand budget, EUR 97.5 thousand is used. The result was cross-checked with a standard linear-programming solver, which returned the same allocation.

Table 4

Final simplex table (iteration 3)

Basis	x_1	x_2	x_3	s_1	s_2	s_3	s_4	RHS
s_1	0	0	0	1	−0.5	−0.6	−1	2.5
x_1	1	0	0	0	1	0	0	35
x_3	0	0	1	0	0	1	0	50
x_2	0	1	0	0	−0.5	−0.4	1	12.5
Z	**0**	**0**	**0**	**0**	**0.8**	**1.32**	**1.2**	**154**

Interpretation. The optimum lies at a vertex of the feasible region at which constraints (2), (3) and (4) are binding, whereas the budget constraint is not (slack s1 = 2.5). The coefficients of the slack variables in the objective row are shadow prices. Within a limited range of each right-hand side, an additional EUR 1 thousand of permitted payment-flexibility incentives would raise Z by EUR 0.80 thousand, an additional EUR 1 thousand of capacity for the sustainability and digital-service package by EUR 1.32 thousand, and one additional account-management day by EUR 1.20 thousand, whereas additional budget alone would add nothing. In this illustration, the binding limitations are therefore the credit-risk policy and delivery and management capacity rather than funds, which is the kind of managerial insight that a mechanical proportional allocation would not reveal.

Limitations and extensions. The illustration assumes constant returns to each incentive, deterministic coefficients and a single planning period, whereas incentive response is likely to show diminishing returns and substantial uncertainty. Shadow prices are valid only within the range over which the optimal basis remains unchanged, so sensitivity or scenario analysis should accompany any empirical application. The model can be extended by indexing the instruments by survey-derived customer segments and by candidate markets identified from the website geography, and by adding minimum allocations for strategic accounts, which require the two-phase or Big-M variants of the simplex method. Its practical value will depend on the quality of the experimental and CRM evidence used to estimate the coefficients, which this study does not yet provide.

6 From survey data to data-driven marketing decisions

The survey is not intended to operate as an isolated satisfaction study. Its strategic value emerges when responses are interpreted together with CRM and transaction information, where legally and organisationally appropriate. The survey explains customer priorities, perceived supplier performance, relationship quality, switching triggers, future-demand direction, sustainability expectations and digital-service needs; transaction data can complement these perceptions with actual purchasing volume, product mix, frequency, realised prices and payment behaviour. This combination is consistent with data-driven B2B marketing because it joins stated customer needs with observed commercial behaviour rather than relying on either source alone.

A practical segmentation framework can therefore combine company profile attributes, purchasing-volume category, supplier-selection priorities, relationship quality, future-demand expectations, sustainability orientation and digital-service preferences [12]. The revised payment item can add a commercial sensitivity dimension by indicating whether customers perceive favourable payment terms as sufficiently valuable to justify a higher price. Customers with similar purchasing volumes may consequently warrant different approaches if one prioritises price and payment flexibility while another prioritises delivery reliability, technical support, sustainability information and digital visibility. The resulting segments should be empirically derived rather than predetermined.

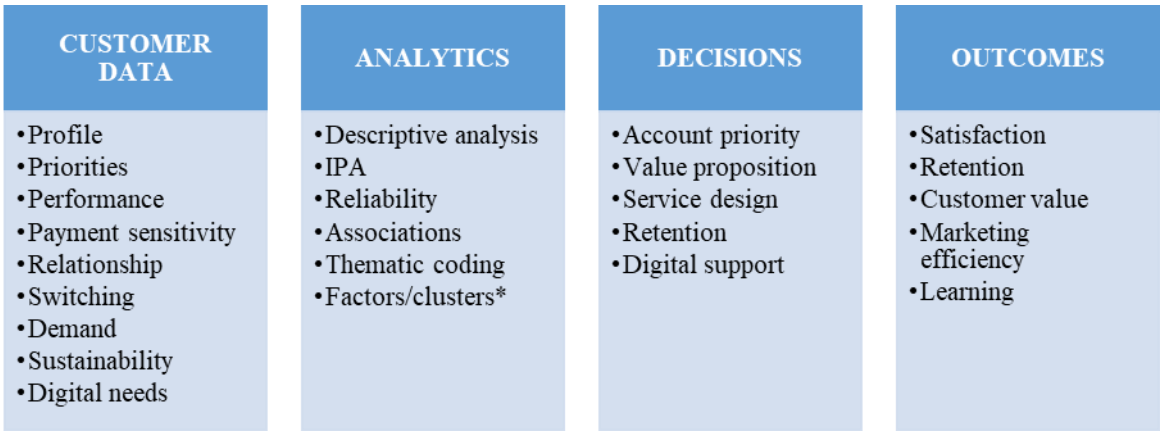


Figure 2. Proposed customer data-to-decision framework for Alcomet

The payment-term item remains strategically useful, but its interpretation must follow the revised questionnaire. It can be compared with company size, annual purchasing-volume category, satisfaction, intention to continue purchasing and future-demand expectations to examine whether willingness to exchange price for more favourable payment conditions varies across customer groups. However, the present survey cannot identify customers by actual payment mode or credit duration. If Alcomet later wishes to build a credit-oriented segmentation, the survey could be extended with current and preferred terms (for example, payment in advance or specified credit periods), or – preferably where governance permits – survey responses could be linked to verified internal commercial data.

The same logic applies to sustainability and digital services. Customers that attach high importance to recycled content, low-carbon production, verified carbon footprint, traceability or CBAM-related information may justify differentiated sustainability communication and documentation. Customers that value real-time order tracking, digital documentation, product-availability information, personalised pricing information or demand-forecasting support may

form a digitally oriented service segment. The two open-ended questions provide an additional qualitative layer and can reveal needs not captured by the predefined response categories.

7 Managerial implications, limitations and conclusion

For Alcomet, the proposed methodology provides a pathway from aggregate market analysis toward customer-level evidence. The first managerial priority is a consistent data foundation: common customer identifiers, agreed definitions and integration between survey, CRM, ERP and commercial records. The second is analytical discipline: a small set of decision-relevant measures should be preferred to dashboards containing large volumes of disconnected indicators. The third is activation: each analytical output should be associated with a decision owner, an action and a measurable outcome.

The study has several limitations. It is a conceptual case-based analysis using public information and a proposed 18-question survey instrument; it does not report primary customer responses or assess Alcomet's internal data architecture. The final sampling frame and sample size will depend on access to active B2B customers and response rates. The questionnaire measures stated perceptions and intentions, which may differ from actual purchasing behaviour. In particular, the revised instrument captures sensitivity to favourable payment terms but not actual payment method or credit duration. More complex multivariate techniques, including factor and cluster analysis, should therefore be applied only if the achieved sample and measurement properties are adequate. A future empirical phase could combine the survey with CRM and transaction records and repeat measurement over time.

In conclusion, transforming B2B marketing through DDDM requires more than acquiring software or external market reports. Competitive value is created when customer, transaction and market information is systematically collected, integrated and translated into decisions. The revised customer survey provides a feasible first-party data instrument for this purpose. Its structure supports analysis of supplier priorities and performance gaps, relationship quality, switching triggers, future demand, sustainability expectations, digital-service value and sensitivity to payment conditions. When combined with verified commercial data, these insights can support more precise customer segmentation, account prioritisation, service design and retention decisions in the European aluminium industry.

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