

Improving the methodology for assessing the effectiveness of marketing research in the field of freight transportation

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Abstract: This article presents a multidimensional framework for evaluating the effectiveness of marketing research in freight transportation. Drawing on both quantitative and qualitative methods, the study identifies and tests key performance indicators (KPIs) that integrate operational, strategic, and perceptual factors. Three freight companies—representing maritime, road, and rail transport—participated in a six-month pilot, applying the proposed framework to gauge the impact of marketing research on outcomes such as load factor, delivery accuracy, market expansion, and customer loyalty. Results indicate that the most reliable measures link marketing insights to operational efficiency and strategic growth; purely perceptual metrics, such as brand awareness, proved comparatively less predictive of sustained business improvements. Additionally, the study highlights the importance of internal alignment across marketing, operations, and finance divisions to ensure consistent data collection and maximize the benefits of research initiatives. The findings offer practical guidance for practitioners and researchers seeking a systematic, evidence-based approach to refining marketing strategies in the freight transportation sector.

Keywords:

- Freight transportation
- Marketing research
- Assessment methodology
- Operational performance
- Strategic indicators
- Customer loyalty
- Multidimensional framework
- Logistics management

Introduction: The freight transportation sector plays a crucial role in sustaining global supply chains, enabling goods to reach markets efficiently and reliably. In an increasingly competitive environment, companies involved in freight transportation—be they logistics operators, freight forwarders, or carriers—must leverage marketing research to better understand

market trends, customer expectations, and competitive dynamics. By systematically collecting and analyzing data on client needs, cost structures, and service differentiation, freight transportation firms can adapt more rapidly to changes in demand and improve their operational strategies. However, measuring the success of such marketing research remains a

challenge. Many organizations either rely on purely quantitative metrics (such as the number of leads generated) or use intangible measures (like brand awareness), often without integrating these indicators into a cohesive assessment methodology. This gap makes it difficult to evaluate how effectively the research supports decision-making and contributes to long-term business performance.

In response to these challenges, researchers have emphasized the need to develop robust methodologies for assessing the effectiveness of marketing research, with particular attention to domain-specific factors. Freight transportation is characterized by unique constraints: cyclical demand patterns, strict regulatory requirements, cost-sensitive operations, and complex multi-modal interactions that span land, sea, and air transportation. Traditional marketing metrics—such as conversion rates or brand visibility—only partially capture the value of information gathered in this environment. Consequently, a refined framework must incorporate operational indicators (like load factors, delivery times, and route optimization), strategic metrics (including market share evolution and competitor positioning), and intangible outcomes (for instance, improved customer loyalty or enhanced brand reputation). Only by considering all these factors together can freight firms gain a holistic view of how effectively marketing research drives results.

This study aims to contribute to this evolving conversation by proposing and testing an improved methodology that integrates a spectrum of quantitative and qualitative indicators to provide a more accurate measure of marketing research effectiveness in freight transportation. The present article follows the IMRAD structure. In the Methods section, the specific research design, data collection techniques, and analytic strategies are outlined. The Results section presents empirical findings from a multi-phase study involving market surveys, stakeholder interviews, and benchmarking analyses. Finally, the Discussion interprets these findings in light of existing literature, offering practical recommendations for freight transportation companies seeking to strengthen the nexus between marketing insights and strategic decision-making. By advancing a refined assessment methodology, this study hopes to spur more data-driven, comprehensive marketing strategies within the freight industry.

METHODS

The research design employed for this study combined both quantitative and qualitative approaches to achieve a robust assessment of marketing research effectiveness. The first stage involved a thorough

review of existing methodologies, with an emphasis on frameworks used in logistics and transportation contexts. Articles, conference proceedings, and industry reports served as primary sources, enabling the identification of commonly used performance indicators for marketing activities. These indicators ranged from standard marketing metrics, such as brand recall, to more transportation-specific measures, including freight volume fluctuations, route optimization success rates, and cost-per-shipment comparisons.

Following the literature review, the second stage of the study engaged industry experts to refine and prioritize these indicators. Ten professionals from different segments of the freight transportation sector—road haulage, maritime shipping, rail logistics, and air cargo—participated in semi-structured interviews. They were asked to evaluate the relevance of identified indicators and suggest any additional factors that may influence the effectiveness of marketing research. Questions focused on challenges unique to freight markets, the role of customer satisfaction surveys, brand positioning strategies, and the ways in which marketing intelligence translates into operational improvements.

Based on these expert interviews, a preliminary assessment framework was constructed. This framework contained three main categories of indicators: operational (e.g., fleet utilization, delivery accuracy, transit times), strategic (e.g., market share, partner network expansion, new market penetration), and perceptual (e.g., customer loyalty, brand reputation, service quality perceptions). Each category included measurable variables, described with definitions and potential data collection methods. For instance, the “customer loyalty” variable included repeat business rates and Net Promoter Score data, while “delivery accuracy” included the frequency of on-time deliveries without loss or damage.

The third stage was a pilot study conducted with three freight transportation companies operating in different contexts: an international logistics provider specializing in sea and air freight, a regional trucking company focusing on just-in-time deliveries, and a rail freight operator serving bulk commodity markets. Each company was asked to implement the preliminary assessment framework over the course of six months. Their marketing departments collected data on the identified indicators, with additional support from operations and finance teams to ensure consistent reporting. During this period, the researchers maintained regular contact with key stakeholders to provide clarification on definitions, ensure data quality, and solicit feedback on any methodological challenges

encountered.

Upon completion of the pilot phase, a final data set was compiled and analyzed using statistical software for quantitative measures and coding tools for qualitative inputs (such as open-ended survey responses and manager interview notes). Correlation analyses, regression models, and qualitative content analysis were employed to determine how well each indicator captured the impact of marketing research efforts. Through iterative refinement, the team discarded redundant metrics and adapted the framework to highlight the most predictive factors. This process ultimately yielded a streamlined methodology intended to deliver clear, actionable insights for freight transportation managers.

RESULTS

The analysis of pilot study data revealed several key insights about marketing research assessment in freight transportation. First, the strongest correlations emerged in indicators that bridged operational and strategic considerations. For instance, improvements in load factor consistency—an operational metric—were strongly linked to enhanced customer loyalty, indicating that customers perceived more reliable service when capacity was managed effectively. Similarly, companies that invested in targeted market research for route planning saw an increase in new market penetration, suggesting that deeper customer and industry insights informed more competitive service offerings.

Second, purely perceptual indicators such as brand awareness showed weaker direct correlations with concrete business outcomes like revenue growth or reductions in cost per shipment. Although brand recognition did play a role in differentiating services, especially in highly competitive trade lanes, many experts noted that freight customers (particularly in business-to-business contexts) often prioritize reliability, cost, and compliance with shipping standards over brand image. As a result, while perceptual metrics cannot be ignored, they should be weighted carefully when evaluating overall marketing research effectiveness in the freight sector.

Third, qualitative feedback from company stakeholders underscored the importance of aligning marketing research goals with broader corporate strategies. In cases where marketing research was undertaken to guide expansion into new geographical markets or to support an industry-specific service (e.g., pharmaceutical cold chain logistics), managers consistently reported more pronounced benefits. This alignment allowed them to design research initiatives that directly addressed service gaps, which in turn led

to measurable improvements in route utilization, on-time performance, or new account acquisition. By contrast, marketing research conducted in a vacuum—without clear ties to operational objectives—yielded little practical benefit and often failed to justify its cost.

Notably, the pilot study also identified specific methodological challenges. Data collection inconsistencies arose in two of the three participating companies, where different departments used varying definitions of key terms like “on-time delivery” or “cost per shipment.” These inconsistencies caused minor discrepancies in the final data set, underscoring the need for careful stakeholder engagement and standardized reporting protocols. Additionally, certain metrics, such as “ease of doing business,” were found to be highly subjective and dependent on customer perceptions that varied significantly across regions and shipment types.

DISCUSSION

The findings suggest that improving the methodology for assessing the effectiveness of marketing research in freight transportation requires an integrated, multi-dimensional approach. Simply transferring traditional marketing metrics into the freight context proves insufficient because it neglects the operational realities and performance-driven culture of the industry. Instead, the proposed framework highlights the importance of balancing three categories of indicators: operational performance (which addresses real-time logistics challenges), strategic outcomes (reflecting market positioning and expansion efforts), and perceptual factors (gauging customer attitudes and loyalty). By measuring these interrelated domains in tandem, companies are better equipped to see how marketing intelligence influences everything from route efficiency to brand perception.

This study also underscores the critical role of internal alignment. The success of a marketing research program hinges not only on well-chosen metrics but also on collaboration across multiple departments. Marketing, operations, finance, and even compliance divisions must share standardized definitions, data reporting procedures, and strategic objectives. This cross-functional coordination ensures that marketing research insights seamlessly feed into service enhancements and pricing strategies, as well as compliance protocols vital to freight transportation. Failing to establish these channels of alignment diminishes the potential return on investment from marketing research, as important findings may remain siloed or lack immediate application in day-to-day freight operations.

Finally, while perceptual and brand-related measures

remain part of any holistic assessment framework, the freight transportation sector's emphasis on cost and reliability means such measures should serve as complementary insights rather than primary drivers of strategic decisions. Future work could involve refining tools that capture intangible aspects of the customer experience, recognizing that the choice of freight service providers can hinge on trust and relationship factors that are not always captured by operational metrics alone. By refining how these softer variables are measured and weighted, the freight industry can develop a more nuanced understanding of how to build and sustain customer loyalty over time.

Overall, the proposed methodology and the accompanying findings encourage managers and researchers in freight transportation to adopt a broadened perspective on evaluating marketing research. With a careful blend of quantitative performance metrics and qualitative insights, companies can more accurately gauge the effectiveness of their marketing efforts, justify research expenditures, and ultimately refine their service offerings to better match evolving market demands.

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