

Algorithmic Decision Support in Trade Spend and Sales Planning: Managerial Implications of AI-Driven Optimization Models

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Abstract - Trade spend and sales planning represent two of the most complex and resource-intensive decision domains in large commercial organizations. Decisions regarding promotional investments, customer incentives, and sales targets involve significant financial exposure, competing objectives, and high levels of uncertainty. Traditionally, these decisions have relied on managerial experience, historical performance analysis, and negotiated planning processes. While such approaches offer contextual flexibility, they struggle to scale and often result in inconsistent outcomes across markets and channels. This paper examines the growing role of algorithmic decision support in trade spend and sales planning, with a particular focus on AI-driven optimization models. Adopting a business management perspective, the study moves beyond technical model performance to analyze how algorithmic decision support reshapes managerial roles, decision authority, and governance structures. The paper conceptualizes AI-driven optimization as a decision design capability that augments managerial judgment rather than replacing it. The analysis highlights how algorithmic decision support enables organizations to evaluate complex trade-offs among volume growth, profitability, and relational considerations at scale. At the same time, it reveals new managerial challenges related to transparency, accountability, and trust in algorithmic recommendations. The paper argues that the strategic value of AI-driven optimization depends on how decision authority is allocated between human managers and intelligent systems, particularly in high-stakes domains such as trade spend allocation. To address these challenges, the study proposes a managerial framework for integrating algorithmic decision support into trade spend and sales planning processes. The framework emphasizes decision-type differentiation, controlled delegation of authority, and governance mechanisms that align algorithmic outputs with strategic intent. The paper contributes to business management literature by clarifying the managerial implications of AI-driven optimization models and provides practitioners with guidance for institutionalizing algorithmic decision support as a scalable and governable capability in commercial planning.

Keywords - Algorithmic Decision Support, Trade Spend Management, Sales Planning, AI-Driven Optimization, Managerial Decision-Making

I. INTRODUCTION

Trade spend and sales planning occupy a central position in the commercial decision architecture of large organizations. Decisions related to promotional investments, pricing incentives, customer discounts, and sales targets directly influence revenue growth, margin performance, and long-term customer relationships. Despite their strategic importance, these decisions are often characterized by high uncertainty, competing objectives, and significant financial risk. As a result, trade spend and sales planning have long been recognized as among the most challenging managerial responsibilities in commercial organizations.

Traditionally, trade spend and sales planning decisions have relied on a combination of managerial experience, historical performance analysis, and negotiated planning processes. Sales leaders and account managers draw on past outcomes and market knowledge to allocate budgets and set targets, often adjusting plans through iterative discussions and internal negotiations. While this approach allows for contextual flexibility, it also introduces inconsistency, bias, and limited scalability—particularly in organizations operating across multiple markets, channels, and customer segments.

The increasing complexity of commercial environments has amplified these limitations. Fragmented customer bases, dynamic pricing pressures, and shortened planning cycles have expanded the volume and velocity of decision-relevant information. Managers are required to evaluate a growing number of trade-offs, such as balancing short-term volume gains against long-term profitability or optimizing promotional intensity across diverse customer portfolios. In this context, purely human-centered decision-making struggles to process information at the scale and speed required for effective commercial planning.

Algorithmic decision support has emerged as a response to these challenges. Advances in artificial intelligence and optimization techniques enable organizations to systematically evaluate large sets of alternatives, simulate scenarios, and identify decision configurations that align with defined objectives. In trade spend and sales planning, algorithmic models can analyze historical data, forecast demand responses, and optimize budget allocation across customers and channels. These capabilities promise improvements in consistency, transparency, and analytical rigor.

However, the introduction of algorithmic decision support also raises important managerial questions. While optimization models can generate sophisticated recommendations, their integration into existing decision processes is far from straightforward. Managers must decide how much authority to delegate to algorithms, how to interpret and trust model outputs, and how to reconcile algorithmic recommendations with relational and strategic considerations that are difficult to quantify. In high-stakes domains such as trade spend, these questions are particularly salient.

Existing research on AI-driven optimization often emphasizes technical performance, such as predictive accuracy or computational efficiency. Less attention has been given to the managerial implications of algorithmic decision support in commercial planning contexts. As a result, organizations frequently implement optimization tools without fully addressing issues of decision authority, governance, and accountability. This gap contributes to underutilization, resistance, or superficial adoption of algorithmic systems.

This paper addresses this gap by examining algorithmic decision support in trade spend and sales planning from a business management perspective. Rather than evaluating specific algorithms, the study focuses on how AI-driven optimization models reshape managerial roles, decision authority, and organizational control. The paper argues that algorithmic decision support should be understood as a decision design capability that augments managerial judgment rather than replaces it.

The objectives of this study are threefold. First, it seeks to conceptualize trade spend and sales planning as managerial decision domains characterized by

complexity and competing objectives. Second, it analyzes how algorithmic decision support and optimization models alter the structure and execution of these decisions. Third, it proposes a managerial framework for integrating AI-driven optimization into commercial planning processes in a manner that enhances performance while preserving accountability and strategic intent.

By positioning algorithmic decision support as a managerial rather than purely technical phenomenon, this paper contributes to business management literature on decision systems and planning. For practitioners, it offers guidance on how to leverage AI-driven optimization models to improve trade spend effectiveness and sales planning discipline without undermining trust or control. Ultimately, the study contends that the value of algorithmic decision support lies not in automation alone, but in its deliberate integration into managerial decision architectures.

II. TRADE SPEND AND SALES PLANNING AS MANAGERIAL DECISION DOMAINS

Trade spend and sales planning constitute interconnected managerial decision domains that shape both short-term performance and long-term competitive positioning. Trade spend decisions determine how promotional budgets, discounts, and incentives are allocated across customers, channels, and time periods. Sales planning decisions, in turn, establish targets, capacity assumptions, and execution priorities that guide commercial activity. Together, these domains form a tightly coupled decision system in which choices in one area directly influence outcomes in the other.

From a managerial perspective, trade spend decisions are inherently strategic rather than purely operational. Although promotional investments are often evaluated on near-term volume lift, their effects extend to margin erosion, brand positioning, and customer behavior over time. Managers must balance competing objectives, such as driving incremental sales while protecting profitability and maintaining equitable treatment across key accounts. These trade-offs cannot be resolved through simple rules, making trade spend a complex decision domain that requires structured judgment.

Sales planning further amplifies this complexity.

Planning processes involve forecasting demand, setting achievable yet ambitious targets, and aligning sales resources with market opportunities. These decisions must account for uncertainty in customer behavior, competitive responses, and macroeconomic conditions. As organizations scale, sales planning becomes less about individual market knowledge and more about coordinating assumptions and priorities across diverse commercial units.

A defining characteristic of both trade spend and sales planning is decision interdependence. Promotional investments influence demand patterns, which in turn affect forecast accuracy and target setting. Conversely, sales targets shape the intensity and distribution of trade spend. Managers therefore operate within a feedback loop in which decisions are continuously adjusted based on observed outcomes. This interdependence increases decision complexity and raises the risk of suboptimal outcomes when decisions are made in isolation.

Another important feature of these domains is the presence of organizational negotiation. Trade spend allocation often involves bargaining between central management, sales teams, and key customers. Sales plans may be adjusted to accommodate local constraints or relationship considerations. While negotiation allows flexibility, it can also introduce bias, political influence, and inconsistency. In large organizations, these dynamics make it difficult to ensure that decisions reflect enterprise-level priorities rather than local optimization.

The scale of decision-making further complicates managerial control. Large commercial organizations may manage thousands of promotional actions and sales plans simultaneously across regions and channels. Human-centered decision processes struggle to evaluate such volumes consistently, leading to reliance on heuristics or simplified rules. This scalability challenge creates a gap between strategic intent and execution discipline.

Trade spend and sales planning are also characterized by limited decision transparency. Managers may observe aggregate outcomes, such as revenue growth or budget utilization, without clear visibility into how individual decisions contributed to those results. This opacity constrains organizational learning and makes it difficult to refine decision processes over time.

In summary, trade spend and sales planning represent

complex managerial decision domains defined by interdependence, negotiation, scale, and uncertainty. These characteristics explain why traditional approaches often fall short and why organizations increasingly seek algorithmic decision support. The next section examines the limitations of traditional trade spend and sales planning approaches in greater detail, setting the stage for the introduction of AI-driven optimization models.

III. LIMITATIONS OF TRADITIONAL TRADE SPEND AND SALES PLANNING APPROACHES

Traditional trade spend and sales planning approaches have evolved around managerial experience, historical performance analysis, and negotiated planning cycles. These methods provide flexibility and allow managers to incorporate contextual knowledge, yet they exhibit structural limitations that become increasingly pronounced as commercial complexity grows. Understanding these limitations is essential for assessing the managerial value of algorithmic decision support.

One major limitation is overreliance on historical averages. Many trade spend decisions are informed by past promotional outcomes, assuming that future responses will resemble prior patterns. While historical analysis offers a useful baseline, it often fails to account for changing market conditions, evolving customer behavior, and competitive dynamics. This backward-looking orientation constrains innovation and limits the ability to adapt to emerging opportunities or risks.

A second limitation arises from manual scenario evaluation. Managers frequently assess a limited set of promotional and sales planning scenarios due to time and cognitive constraints. Complex trade-offs among volume, margin, and customer equity are simplified, leading to suboptimal budget allocation. As the number of customers, channels, and promotional levers increases, manual evaluation becomes impractical, forcing reliance on heuristics rather than systematic analysis.

Organizational negotiation further complicates traditional approaches. Trade spend and sales plans are often shaped through iterative discussions among sales teams, finance, and senior management. While negotiation can align stakeholders, it also introduces

political considerations and local optimization. Decisions may reflect bargaining power rather than enterprise-wide value creation, undermining strategic coherence.

Consistency represents another challenge. Different managers may apply different criteria when allocating trade spend or setting sales targets, leading to variability in decision quality across regions or accounts. This inconsistency complicates performance evaluation and weakens organizational learning, as it becomes difficult to distinguish effective decision patterns from idiosyncratic judgment.

Traditional approaches also struggle with scalability and speed. As planning cycles shorten and decision frequency increases, manual processes cannot keep pace with market dynamics. Delayed or infrequent adjustments reduce responsiveness and limit the organization's ability to capitalize on timely opportunities. In fast-moving commercial environments, these delays can erode competitive advantage.

Finally, traditional trade spend and sales planning approaches offer limited decision transparency. Managers may track budget utilization or target attainment without clear insight into the effectiveness of individual decisions. This opacity restricts feedback and learning, making continuous improvement difficult.

In summary, traditional approaches to trade spend and sales planning are constrained by historical bias, limited scenario analysis, negotiation dynamics, inconsistency, and scalability challenges. These limitations highlight the need for more systematic and transparent decision support mechanisms. The next section introduces algorithmic decision support and optimization models as a response to these challenges, emphasizing their managerial implications rather than technical detail.

IV. ALGORITHMIC DECISION SUPPORT AND OPTIMIZATION MODELS

Algorithmic decision support refers to the use of computational models to systematically evaluate alternatives, quantify trade-offs, and guide managerial decisions. In the context of trade spend and sales planning, algorithmic support does not

replace managerial judgment; rather, it restructures how decisions are explored, compared, and justified. From a business management perspective, its primary contribution lies in expanding the decision space that managers can realistically consider.

Optimization models represent a central category of algorithmic decision support. These models are designed to identify decision configurations that best align with defined objectives under given constraints. In trade spend decisions, objectives may include revenue growth, margin protection, customer retention, or budget efficiency. Constraints can reflect budget limits, contractual obligations, or capacity considerations. Optimization models allow managers to evaluate how different allocations perform across these dimensions simultaneously, something that is difficult to achieve through manual analysis.

A key distinction between traditional analytical tools and AI-driven optimization models is adaptability. While rule-based systems apply predefined logic, AI-driven models learn from historical and real-time data, refining their recommendations as conditions change. This learning capability enables decision support systems to adjust to shifting customer behavior, promotional effectiveness, and market dynamics. For managers, this adaptability reduces reliance on static assumptions and supports more responsive planning.

Importantly, algorithmic decision support reframes decision-making from selection among a few predefined options to exploration of a broader solution space. Instead of choosing between limited scenarios, managers can assess a range of optimized alternatives generated by the system. This shift enhances decision quality by revealing non-obvious trade-offs and opportunities that might otherwise remain hidden.

However, the managerial value of optimization models depends on how objectives and constraints are defined. These parameters encode strategic priorities and risk tolerance, effectively translating managerial intent into system behavior. Poorly specified objectives can lead to technically optimal but strategically undesirable outcomes. As such, the design and governance of optimization models constitute a core managerial responsibility.

Algorithmic decision support also influences how decisions are justified and communicated.

Recommendations grounded in transparent criteria and quantified trade-offs provide a structured basis for discussion among stakeholders. This transparency can reduce conflict and negotiation-driven distortions, particularly in trade spend decisions that involve multiple internal interests.

In summary, algorithmic decision support and AI-driven optimization models expand managerial capacity to analyze complex trade-offs in trade spend and sales planning. Their value lies not in automation per se, but in enabling more systematic, transparent, and scalable decision processes. The following section examines how these models are applied specifically to trade spend decisions, highlighting their implications for budget allocation and promotional effectiveness.

V. AI-DRIVEN OPTIMIZATION IN TRADE SPEND DECISIONS

Trade spend decisions involve allocating substantial financial resources across customers, channels, promotional mechanisms, and time periods. These decisions are characterized by complex trade-offs among volume growth, profitability, and relationship management. AI-driven optimization models address this complexity by enabling managers to evaluate allocation alternatives systematically rather than relying on incremental adjustments or negotiated compromises.

A central contribution of AI-driven optimization lies in budget allocation discipline. Traditional trade spend planning often distributes budgets based on historical shares or negotiated targets, which can perpetuate inefficiencies. Optimization models instead evaluate the expected impact of incremental spend across accounts or promotions, allowing resources to be directed toward opportunities with the highest marginal return. For managers, this shifts trade spend from a distributive exercise to a value-maximization problem.

AI-driven models also enhance promotional effectiveness analysis. By learning from historical response patterns, these systems can estimate how different customers or channels respond to varying incentive levels. This capability enables more granular differentiation, moving away from uniform promotional strategies toward targeted investments. From a managerial standpoint, such differentiation

supports more strategic customer management without requiring exhaustive manual analysis.

Another important implication concerns trade-off visibility. Trade spend decisions often involve balancing short-term volume gains against long-term margin or customer equity. AI-driven optimization models make these trade-offs explicit by quantifying expected outcomes under alternative scenarios. This transparency supports more informed managerial judgment and reduces reliance on intuition alone, particularly in contentious budget discussions.

AI-driven optimization also alters the temporal dimension of trade spend decisions. Rather than treating trade spend as a static annual budget, optimization models support dynamic reallocation as conditions change. Managers can adjust investments in response to performance feedback, competitive actions, or demand shifts, improving responsiveness while maintaining overall budget discipline.

Despite these advantages, AI-driven optimization introduces new managerial challenges. Managers must determine how much discretion to retain in trade spend decisions, particularly for strategically important accounts where relational considerations may outweigh model recommendations. Effective use of optimization models therefore requires clear guidelines regarding when and how human judgment can override algorithmic suggestions.

In summary, AI-driven optimization transforms trade spend decision-making by introducing systematic allocation logic, enhanced trade-off visibility, and dynamic adjustment capability. Its managerial value depends on the deliberate integration of optimization models into decision processes that respect both analytical rigor and strategic judgment. The next section examines how algorithmic decision support extends into sales planning processes, further reshaping managerial roles and planning discipline.

VI. ALGORITHMIC SUPPORT IN SALES PLANNING PROCESSES

Sales planning processes translate strategic objectives into operational targets, capacity assumptions, and execution priorities. These processes require managers to anticipate demand, align resources, and set performance expectations under conditions of uncertainty. Algorithmic decision

support extends the capabilities of traditional sales planning by enabling more systematic analysis of demand patterns, scenario alternatives, and resource constraints.

One of the most significant contributions of algorithmic support lies in demand forecasting and target setting. AI-driven models can analyze historical sales data alongside external signals such as seasonality, promotional activity, and market trends to generate more granular forecasts. These forecasts provide a structured input for target setting, reducing reliance on top-down adjustments or negotiated compromises. For managers, this enhances credibility and consistency in planning discussions.

Algorithmic support also enables scenario-based planning. Instead of committing to a single forecast, managers can evaluate multiple demand and execution scenarios generated by the system. These scenarios reveal how changes in assumptions—such as promotional intensity, pricing adjustments, or capacity constraints—affect sales outcomes. This capability supports more resilient planning by preparing organizations for variability rather than assuming stability.

Another important implication concerns resource alignment. Sales planning decisions influence how salesforce capacity, inventory, and marketing support are allocated. Algorithmic decision support helps managers evaluate the implications of different allocation strategies, identifying bottlenecks and underutilized resources. This systems-level perspective improves coordination across functions and reduces misalignment between plans and execution capability.

Algorithmic support also reshapes the role of human judgment in sales planning. Rather than manually constructing plans, managers increasingly act as evaluators and designers of planning assumptions. They assess model outputs, challenge underlying assumptions, and incorporate qualitative insights related to customer relationships or competitive behavior. This shift elevates managerial involvement from data manipulation to strategic interpretation.

However, the integration of algorithmic support into sales planning introduces governance considerations. Overreliance on forecasts can obscure uncertainty and reduce flexibility, while excessive overrides can

negate analytical benefits. Effective planning requires clear norms regarding how algorithmic outputs are used, when deviations are justified, and how learning from outcomes is incorporated into subsequent planning cycles.

In summary, algorithmic decision support enhances sales planning by improving forecast quality, enabling scenario analysis, and supporting resource alignment. Its managerial value depends on the balance between analytical rigor and contextual judgment. The following section examines the broader managerial implications of algorithmic decision support across trade spend and sales planning, focusing on decision authority, trust, and accountability.

VII. MANAGERIAL IMPLICATIONS OF ALGORITHMIC DECISION SUPPORT

The integration of algorithmic decision support into trade spend and sales planning fundamentally reshapes managerial roles, decision authority, and accountability structures. As optimization models increasingly inform or guide commercial decisions, managers transition from direct decision-makers to architects and governors of decision systems. This shift represents a qualitative change in managerial responsibility rather than a reduction in managerial influence.

One major implication concerns decision authority redistribution. Algorithmic systems introduce a new locus of influence by generating recommendations grounded in systematic analysis. Managers must decide when algorithmic outputs are advisory, when they are default options, and when they may be executed automatically within predefined limits. Clearly defining these authority boundaries is essential to prevent ambiguity and conflict between human judgment and system recommendations.

Trust emerges as a central managerial challenge. Effective use of algorithmic decision support depends on managers' confidence in model logic, data integrity, and alignment with strategic objectives. Trust is not achieved through accuracy alone; it requires transparency, explainability, and consistent performance over time. Managers play a key role in shaping trust by communicating how algorithms are used and by modeling appropriate reliance on system outputs.

Algorithmic decision support also alters accountability mechanisms. While systems may generate or execute decisions, accountability for outcomes remains human. Managers are responsible for defining objectives, constraints, and governance rules that shape algorithmic behavior. This reframing shifts accountability from individual decision approval to system design and oversight, demanding new performance metrics and evaluation practices.

Leadership identity is similarly affected. Managers must balance analytical discipline with relational and strategic considerations, particularly in trade spend decisions involving key customers. Effective leaders use algorithmic insights to inform negotiation and alignment rather than to enforce rigid compliance. This balanced approach reinforces managerial legitimacy while leveraging analytical rigor.

In summary, algorithmic decision support transforms management from a role centered on episodic decision-making to one focused on decision system governance. The managerial implications extend beyond efficiency gains to encompass authority, trust, accountability, and leadership practice. The next section examines how governance, transparency, and risk management structures enable organizations to harness these benefits responsibly.

VIII. GOVERNANCE, TRANSPARENCY, AND RISK CONSIDERATIONS

As algorithmic decision support becomes embedded in trade spend and sales planning, governance emerges as a central managerial concern. Optimization models influence high-value financial decisions, customer relationships, and performance evaluations. Without robust governance structures, the benefits of AI-driven decision support can be undermined by opacity, misuse, or unintended consequences.

Governance begins with objective alignment. Algorithmic models operate based on explicitly defined goals and constraints, which encode managerial priorities into computational logic. If these parameters are poorly specified or misaligned with strategic intent, optimization outcomes may conflict with broader organizational objectives. Managers must therefore treat objective definition as a strategic activity rather than a technical

configuration task.

Transparency represents a second critical dimension. Trade spend decisions often involve scrutiny from finance, sales leadership, and external partners. Algorithmic recommendations that cannot be reasonably explained risk being rejected or overridden, regardless of analytical quality. Transparency does not require full technical disclosure, but it does require managers to understand and communicate the rationale behind model outputs in decision-relevant terms.

Risk management is particularly salient in trade spend contexts due to financial exposure and reputational implications. Algorithmic decision support can amplify both positive and negative outcomes by scaling decisions across customers and markets. Governance mechanisms must therefore include monitoring processes to detect anomalies, bias, or drift in model behavior. Early warning indicators and escalation protocols allow managers to intervene before risks materialize at scale.

Ethical considerations further shape governance requirements. Decisions related to pricing incentives or promotional access can raise fairness concerns among customers or partners. Managers must ensure that optimization models do not inadvertently disadvantage certain groups or violate regulatory expectations. Embedding ethical review and auditability into governance frameworks reinforces legitimacy and trust.

Finally, governance structures must be adaptive. As models learn and environments evolve, governance practices should be revisited and refined. Periodic review of objectives, constraints, and performance outcomes supports continuous alignment between algorithmic decision support and managerial intent.

In summary, governance, transparency, and risk management transform algorithmic decision support from a technical capability into a controllable managerial asset. Effective governance enables organizations to scale AI-driven optimization while preserving accountability and trust. The next section introduces a managerial framework that integrates these considerations into a coherent approach to AI-driven trade spend and sales planning.

IX. A MANAGERIAL FRAMEWORK FOR AI-

DRIVEN TRADE SPEND AND SALES PLANNING

Building on the preceding analysis, this section proposes a managerial framework that integrates algorithmic decision support into trade spend and sales planning as a governable organizational capability. The framework is designed to help managers determine where, how, and to what extent AI-driven optimization should influence commercial decisions, while preserving accountability and strategic control.

The framework rests on three interrelated dimensions: decision criticality, optimization scope, and governance intensity. Decision criticality captures the financial, relational, and strategic risk associated with a given decision. High-criticality decisions—such as long-term customer agreements or large promotional commitments—require greater human oversight, whereas lower-criticality, repetitive decisions can be more heavily supported by algorithmic optimization.

Optimization scope defines how broadly AI-driven models are applied within the decision process. In narrow scopes, algorithms evaluate specific components, such as marginal returns on promotional spend. In broader scopes, they integrate multiple variables across customers, channels, and time horizons. Managers must calibrate optimization scope to organizational maturity and data quality to avoid overextension.

Governance intensity represents the mechanisms used to monitor, review, and intervene in algorithmic decision-making. As optimization scope increases, governance intensity must also increase through performance monitoring, explainability requirements, and escalation protocols. This alignment ensures that greater analytical power is matched by stronger managerial oversight.

Together, these dimensions form a dynamic framework that enables managers to tailor AI-driven decision support to different planning contexts. Rather than prescribing a single optimal configuration, the framework emphasizes adaptive design, allowing organizations to evolve their use of optimization models as capabilities and confidence grow. In doing so, it positions algorithmic decision support as a strategic enabler of disciplined and

scalable commercial planning.

X. FUTURE DIRECTIONS OF ALGORITHMIC DECISION SUPPORT IN COMMERCIAL PLANNING

Looking ahead, algorithmic decision support is expected to play an increasingly central role in trade spend and sales planning as AI capabilities advance. Improvements in real-time data integration, explainable optimization, and adaptive learning will enable more responsive and transparent decision systems. These developments may shorten planning cycles and support continuous re-optimization rather than periodic planning.

Future managerial challenges will center on balancing autonomy and control. As optimization models become more capable, organizations will need to reassess decision authority boundaries and governance structures. Leadership competencies will increasingly include system stewardship, ethical oversight, and cross-functional coordination. From a research perspective, further study is needed to examine how different governance models influence performance outcomes across industries and organizational contexts.

XI. CONCLUSION

This paper examined the role of algorithmic decision support in trade spend and sales planning from a business management perspective. By analyzing the limitations of traditional planning approaches and the capabilities of AI-driven optimization models, the study demonstrated that algorithmic decision support reshapes managerial roles, decision authority, and governance requirements.

The findings emphasize that the value of AI-driven optimization lies not in automation alone, but in its deliberate integration into managerial decision architectures. When objectives, authority boundaries, and governance mechanisms are thoughtfully designed, algorithmic decision support enhances decision quality, consistency, and scalability while preserving accountability and strategic intent.

Ultimately, the paper concludes that algorithmic decision support represents a strategic managerial capability in commercial planning. Organizations that approach AI-driven optimization as a design and

governance challenge—rather than a purely technical solution—are better positioned to achieve sustained performance improvements in trade spend management and sales planning.

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