UNIVERSITA' DEGLI STUDI DI PADOVA

DIPARTIMENTO DI SCIENZE ECONOMICHE ED AZIENDALI "M.FANNO"

CORSO DI LAUREA MAGISTRALE IN
Management for Sustainable Firms

TESI DI LAUREA

"SALES AND OPERATIONS PLANNING. HOW CONFLICT AND CONSENSUS AFFECT S&OP PERFORMANCE?"

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ANNO ACCADEMICO 2025 – 2026

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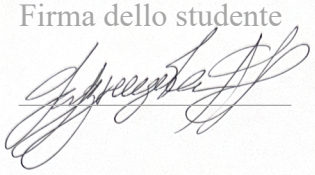

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Abstract

Sales and Operations Planning (S&OP), as a cross-functional process integrating demand, supply, and financial planning, plays a critical role in improving organizational performance. However, despite its widespread adoption, the behavioral dynamics underlying S&OP effectiveness, particularly conflict and consensus, remain fragmented and insufficiently explored in the academic literature. This study addresses this gap by examining how different types of conflict and forms of consensus emerge and interact within the S&OP context.

The research begins with a review of existing literature on S&OP, conflict, and consensus, outlining key concepts and identifying limitations in current theoretical and empirical approaches. Particular attention is given to the lack of integration between behavioral and process-oriented perspectives.

Building on this theoretical foundation, the study presents the results of a systematic literature review. Through the analysis of a structured corpus of academic articles, the research identifies key types of conflict, forms of consensus, and the mechanisms linking them to firm performance. The findings highlight the importance of managing conflict constructively and fostering effective consensus to enhance decision-making quality and organizational outcomes.

Keywords: S&OP, Supply chain, Decision making, Performance

Introduction

Sales and Operations Planning (S&OP) has become a critical process for aligning demand, supply, and financial objectives in increasingly complex and uncertain business environments. Despite extensive research on S&OP structures and tools, the role of behavioral factors, particularly conflict and consensus in cross-functional decision-making, remains fragmented and insufficiently understood.

In recent years, organizations have increasingly faced the challenge of managing growing complexity, uncertainty, and cross-functional interdependencies within supply chains. In this context, Sales and Operations Planning (S&OP) has emerged as a critical managerial process aimed at aligning demand, supply, and financial objectives to support organizational performance (Thomé et al., 2012; Tuomikangas & Kaipia, 2014). While the structural and technological aspects of S&OP have been widely studied, less attention has been given to the behavioral dynamics that underpin its effectiveness, particularly the roles of conflict and consensus in cross-functional decision-making (Ambrose et al., 2018; Kreuter et al., 2022).

This study addresses this gap by examining how different types of conflict and forms of consensus are conceptualized and manifested within the S&OP process, and how they influence firm performance. The research builds on prior literature on S&OP processes, coordination mechanisms, and performance outcomes (Grimson & Pyke, 2007; Goh & Eldridge, 2019), while also incorporating insights from organizational conflict theory (Jehn, 1995; Amason, 1996).

The object of this research is the Sales and Operations Planning (S&OP) process as a cross-functional coordination mechanism within organizations.

The subject of the study is the role of conflict and consensus in S&OP, and the mechanisms through which they influence firm performance.

The research is based on a systematic literature review, which ensures a structured, transparent, and reproducible analysis of existing academic studies. The methodology includes a comprehensive database search in Scopus, multi-stage screening, and qualitative synthesis of a final sample of 69 articles. Additionally, co-citation and thematic analysis were applied to identify patterns, relationships, and research gaps.

The findings reveal that multiple types of conflict coexist within S&OP, including cognitive, affective, and incentive-based conflicts, which are managed through a range of behavioral, organizational, processual, and analytical mechanisms. These mechanisms shape the development of consensus and significantly affect operational and supply chain performance. The results further show that while analytical tools support decision-making, effective performance outcomes depend strongly on the ability to manage cross-functional interactions and achieve high-quality consensus.

The scientific novelty of this study lies in the integration of three traditionally fragmented streams of research: conflict, consensus, and performance in S&OP. The study develops a structured framework linking types of conflict, forms of consensus, and mediating mechanisms, thereby providing a more comprehensive understanding of how cross-functional dynamics shape planning effectiveness.

From a theoretical perspective, the research contributes to the S&OP literature by incorporating insights from organizational behavior and decision-making theory, enriching the understanding of behavioral mechanisms in planning processes. From a practical standpoint, the findings provide guidance for managers on how to manage conflict constructively, foster effective consensus, and design governance mechanisms that enhance S&OP performance.

The structure of this paper was designed to ensure a logical progression from conceptual grounding to systematic evidence synthesis and conclusions. A brief overview of the main sections is provided below:

1) Theoretical overview: This section reviews the development of S&OP and related concepts, with emphasis on cross-functional decision-making, conflict, consensus, and coordination mechanisms. It also discusses key theoretical perspectives and highlights fragmentation and gaps in prior research, which motivates the research questions of the study.

2) Methodology: This section describes the systematic literature review process, including the structured Scopus search, inclusion and exclusion criteria, and the multi-stage screening procedure that resulted in a final sample of 69 articles. It further explains the analytical approach, combining descriptive analysis, citation counting, and thematic coding aligned with the research questions.

3) Results: This section presents the findings of the review. It reports descriptive characteristics of the corpus, identifies influential publications through citation analysis, and

synthesizes key themes related to conflict types, consensus forms, mechanisms linking them to performance, empirical evidence, and research gaps.

4) Conclusion: This section summarizes the main findings and explains their theoretical and managerial implications. It also acknowledges limitations of the review and proposes directions for future research aimed at developing more integrated and empirically grounded understanding of conflict and consensus in S&OP.

5) Appendix: Includes a table of excluded articles with reasons, ensuring transparency of the SLR process.

Chapter 1. Theoretical Overview

1.1. Evolution of the sales and operations planning concept

1.1.1. Historical development of S&OP

The origins of S&OP can be traced back to the late 1980s, when it emerged as an extension of aggregate production planning to address the limitations of siloed functional planning. Ling and Goddard (1988) introduced the concept in their seminal work Orchestrating Success, positioning S&OP as a monthly cross-functional process to balance demand and supply over a medium-term horizon (typically 12-18 months). Early definitions emphasized volumetric planning to reconcile sales forecasts with production capacity and inventory levels (Wallace & Stahl, 2006).

During the 1990s and early 2000s, S&OP gained traction in practitioner literature and industry reports, evolving from a purely production-oriented tool to one incorporating sales input (Lapide, 2005). Grimson and Pyke (2007) conducted an exploratory study based on interviews and literature, proposing a foundational framework that highlighted five key dimensions: organization, meetings, collaboration, performance measurement, and information integration. This period marked the shift toward recognizing S&OP as a mechanism for cross-functional alignment rather than isolated demand-supply balancing.

By the 2010s, academic research synthesized S&OP as a strategic process. Thomé et al. (2012) provided a comprehensive research synthesis, reviewing 271 papers and concluding that S&OP had matured into an integrative business process linking tactical planning with strategic objectives. Their work emphasized the role of S&OP in improving firm performance through better coordination and decision-making.

Kristensen and Jonsson (2018) further contextualized this evolution, arguing that S&OP design must adapt to specific organizational and environmental contexts (e.g., industry, demand volatility, supply chain complexity). This period saw a clear transition from operational focus (balancing volumes) to strategic integration, incorporating financial considerations and executive-level oversight.

1.1.2. Maturity Models of S&OP

Maturity models have played a central role in conceptualizing the development of Sales and Operations Planning (S&OP) from an informal coordination mechanism to a structured,

strategically embedded capability. Conceptually, maturity models are grounded in stage theory (e.g., Nolan, 1973) and process capability logic (e.g., the Capability Maturity Model), which assume that organizational processes evolve through identifiable stages of increasing formalization, integration, and performance impact.

One of the earliest and most influential S&OP maturity frameworks was proposed by Grimson and Pyke (2007). Their model assessed maturity across five dimensions: meetings and collaboration, organization, performance measurement, information technology, and integration. It distinguishing stages from reactive and ad hoc planning to fully integrated and proactive S&OP. A key contribution of this framework was the recognition that S&OP maturity extends beyond process formalization to include cross-functional alignment and strategic integration. Subsequent research refined and extended this stage-based perspective.

Hulthén et al. (2016) developed a performance measurement framework linking S&OP maturity to structured KPI systems and governance mechanisms. Their work emphasized that maturity is not only procedural but also measurement-driven: higher maturity levels are characterized by standardized metrics, accountability structures, and feedback loops.

Danese et al. (2018) advanced the discussion by examining evolutionary implementation paths. Rather than treating maturity as a linear checklist, they conceptualized S&OP development as a sequence of interdependent implementation choices, where structural design, information integration, and behavioral alignment co-evolve. This introduced a contingency perspective, suggesting that maturity trajectories differ depending on organizational context and supply chain complexity.

More recently, Neto et al. (2022) proposed a meta-framework integrating prior maturity models and emphasizing continuous maturity management rather than static stage assessment. Their work shifts the focus from “achieving a level” to dynamically orchestrating capabilities over time.

Beyond descriptive staging, S&OP maturity can be interpreted through the lens of the resource-based view (RBV) (Barney, 1991) and dynamic capabilities theory (Teece, 2007). In this perspective, mature S&OP is not merely a process but a higher-order integrative capability that enables firms to sense demand signals, seize opportunities, and reconfigure supply structures.

This interpretation aligns with the notion of cross-functional integration as a performance-enhancing capability (e.g., Flynn et al., 2010). Mature S&OP systems exhibit:

- Structured information flows;
- Shared performance metrics;
- Governance mechanisms for conflict resolution;
- Executive sponsorship and strategic alignment.

Such characteristics suggest that maturity models implicitly describe the institutionalization of integrative routines.

Empirical S&OP research reinforces the maturity-performance link. Tuomikangas and Kaipia (2014) conceptualized S&OP as a coordination mechanism, emphasizing information processing and reconciliation. Higher maturity corresponds to improved demand–supply balancing and reduced interdepartmental friction.

Similarly, Thomé et al. (2012, 2014) demonstrated that formalized S&OP structures are associated with enhanced operational and financial performance. Their research suggests that maturity reduces variability in planning decisions and strengthens alignment between strategy and execution.

From a behavioral perspective, maturity also moderates functional conflict. At lower maturity levels, goal misalignment and fragmented data increase the likelihood that task conflict escalates into relationship conflict. At higher maturity levels, standardized processes and shared KPIs institutionalize constructive debate, preventing affective escalation. Thus, maturity models implicitly incorporate mechanisms for managing cross-functional tension.

Recent literature also links S&OP maturity to digital integration and advanced analytics capabilities. Higher maturity stages increasingly incorporate integrated ERP and APS systems, real-time data visibility, scenario planning tools and predictive analytics.

However, digital enablement alone does not equate to maturity. As several studies suggest, technology supports, but does not replace, governance mechanisms and cross-functional alignment. Therefore, maturity should be understood as a socio-technical construct, combining process formalization, behavioral norms, and technological infrastructure.

Across models, several consistent dimensions emerge:

1. Process Formalization – Defined cycles, standardized meetings, structured workflows

2. Cross-Functional Integration – Shared ownership and joint decision-making

3. Information Integration – Data transparency and system interoperability

4. Performance Alignment – Unified KPIs and incentive structures

5. Strategic Embedding – Executive involvement and long-term planning integration

Collectively, these dimensions suggest that S&OP maturity represents the gradual institutionalization of an integrative planning capability. Higher maturity levels are consistently associated with improved collaboration, enhanced data quality, and stronger operational and financial performance outcomes.

Rather than viewing maturity models as static diagnostic tools, contemporary research increasingly frames them as dynamic roadmaps for capability development and conflict management within complex supply networks.

1.1.3. Integration with Integrated Business Planning (IBP)

A major milestone in the evolution of Sales and Operations Planning (S&OP) has been its extension into Integrated Business Planning (IBP), which represents a broader and more strategically embedded planning paradigm. While traditional S&OP primarily focuses on balancing demand and supply at the tactical level (Tuomikangas & Kaipia, 2014), IBP expands this scope by systematically integrating financial planning, scenario analysis, executive governance, and long-term strategic alignment. The emphasis shifted from volume balancing to value optimization, incorporating financial reconciliation, profitability considerations, and capital allocation into the planning cycle.

Academic research supports this evolution. Thomé et al. (2012, 2014) demonstrated that advanced S&OP practices are associated with improved operational and financial performance, suggesting that deeper integration enhances value creation. Danese et al. (2018) further showed that higher levels of integration and formalization increase alignment across functional silos, laying the groundwork for financial and strategic embedding. More recently, Neto et al. (2022) emphasized that maturity evolution increasingly requires integration of financial metrics and executive oversight, characteristics consistent with IBP.

Furthermore, IBP addresses governance challenges identified in earlier S&OP research. Oliva & Watson (2009, 2011) showed that functional biases and incentive misalignment can undermine forecast credibility and plan adherence. By embedding financial accountability and executive sponsorship, IBP reduces silo-driven behavior and shifts decision-making toward enterprise-wide value optimization.

Recent research (e.g., Nyman et al., 2025; Shanahan et al., 2025) suggests that IBP incorporates structured risk assessment and scenario simulation into the planning architecture. This reflects the increasing volatility of global supply networks and the limitations of traditional static S&OP models. IBP integrates risk-adjusted planning, enabling firms to evaluate trade-offs between service levels, cost exposure, and capital efficiency under uncertainty. Structurally, the transition from S&OP to IBP is characterized by:

1. Executive ownership and governance integration: planning becomes a senior leadership process rather than a functional coordination meeting;
2. Financial reconciliation and value-based metrics: plans are evaluated in terms of revenue, margin, cash flow, and return on capital;
3. Scenario-based and forward-looking planning: structured what-if analysis supports proactive adaptation;
4. Strategic horizon extension: tactical planning is explicitly linked to long-term strategy and portfolio decisions.

Importantly, IBP should not be understood merely as a rebranding of advanced S&OP. Rather, it represents a conceptual expansion in which planning becomes a central governance mechanism integrating operations, finance, strategy, and risk management. This shift transforms the nature of cross-functional interaction: discussions move beyond volume trade-offs toward enterprise value trade-offs, thereby reframing functional conflict in financial and strategic terms.

In this sense, IBP constitutes the institutionalization of an integrative, finance-anchored planning capability. It aligns demand–supply reconciliation with capital allocation and long-term competitive positioning, addressing the limitations of traditional S&OP in dynamic and uncertain environments.

1.2. Cross-Functional Nature of S&OP and Sources of Tension

1.2.1. Key functions involved in S&OP and their conflicting priorities

Sales and Operations Planning (S&OP) is inherently a cross-functional coordination process that brings together functions with different goals, performance metrics, and decision horizons. Because these functions often operate under asymmetric incentives and information, S&OP tends to surface recurring tensions that must be reconciled through formal coordination mechanisms and governance (Tuomikangas & Kaipia, 2014). This aligns with broader evidence that internal cross-functional alignment is difficult when forecasts and plans are produced by units with different accountabilities (Oliva & Watson, 2009).

Thomé et al. (2012) and Kristensen and Jonsson (2018) identify the core S&OP participants as sales and marketing, operations and supply chain, and finance, often supported by procurement and product functions. In S&OP practice, each function enters the process with distinct priorities that can generate both task conflict (legitimate disagreement over assumptions and trade-offs) and escalation into relationship conflict when trust, transparency, or governance are weak.

Sales and marketing typically prioritize customer service levels, revenue growth, market share, and product availability. Their incentives often reward growth and service outcomes, which can lead to optimistic forecasts and higher target volumes. These dynamics are visible in consensus forecasting settings, where sales forecasts can become strategically biased in the direction of upside targets (Oliva & Watson, 2009, 2011).

Operations and supply chain functions, by contrast, emphasize production efficiency, stable schedules, capacity utilization, and cost minimization. From this perspective, forecast inflation increases operational risk driving instability, expediting, overtime, and inefficiencies. Thus, operations actors often prefer conservative volumes, fewer changeovers, and smooth plans. The core tension therefore emerges as a structural trade-off between responsiveness/service and efficiency/cost, and S&OP becomes the arena where these competing objectives are negotiated (Tuomikangas & Kaipia, 2014).

Finance introduces a different logic: profitability, cash flow, budget adherence, and risk control. Finance participation strengthens the shift from purely volumetric balancing toward value-based decision making, but it can also intensify conflict when financial constraints restrict service or growth ambitions. Empirical evidence suggests that the finance function’s

contribution is strongly connected to KPI discipline, accountability, and more explicit trade-off reasoning in the S&OP cycle, particularly when forecast bias and "numbers negotiation" become problematic (Seeling et al., 2022).

Procurement/Purchasing tends to focus on supplier reliability, cost reduction, and contractual stability, which can conflict with short-term demand changes and frequent plan revisions. When demand swings require rapid adjustments, procurement may resist frequent reconfiguration due to contractual commitments, lead times, or supplier relationship constraints. Research on supplier integration within S&OP similarly suggests that upstream coordination adds value but also increases complexity and the need for clearer coordination mechanisms and role definitions (Goh & Eldridge, 2019).

These divergent priorities create recurring S&OP trade-offs such as service level versus cost, volume flexibility versus schedule stability, and growth ambitions versus budget control. Practitioner and academic work consistently emphasizes that the outcome depends not only on analytical quality but on whether the organization deploys effective coordination mechanisms to turn competing functional views into an integrated plan (Muzumdar & Fontanella, 2006; Tuomikangas & Kaipia, 2014).

1.2.2. Theoretical Foundations of Functional Conflict in Organizations

The concept of functional conflict is rooted in organizational behavior, group dynamics, and decision-making theory. Early organizational scholars already challenged the assumption that conflict is inherently dysfunctional. Mary Parker Follett (1925) distinguished between destructive domination and constructive integration, arguing that properly managed conflict can stimulate learning and innovation. Similarly, Lewis Coser (1956) suggested that conflict may strengthen internal cohesion and clarify group boundaries when managed constructively.

Building on this foundation, Karen A. Jehn (1995) introduced the influential distinction between:

- Task conflict – cognitive disagreements about ideas, goals, or solutions. Under appropriate conditions, task conflict enhances critical evaluation, prevents groupthink, and stimulates innovation;
- Relationship conflict – affective tension and interpersonal friction, which undermines trust, cooperation, and satisfaction.

Subsequent research refined this distinction. Jeffrey A. LePine and colleagues (2008) showed through meta-analysis that moderate task conflict can improve performance, particularly in complex tasks, whereas relationship conflict is consistently detrimental. De Dreu & Weingart (2003) similarly demonstrated that the performance effects of task conflict depend on psychological safety and team norms.

Extending this logic to strategic decision-making, Allen C. Amason (1996) distinguished between cognitive conflict and affective conflict in top management teams. He found that cognitive conflict enhances decision quality, while affective conflict diminishes commitment and satisfaction. This distinction became central in behavioral strategy research, where constructive dissent is seen as a mechanism to improve strategic judgment (e.g., Donald C. Hambrick, 2007).

In cross-functional settings, conflict is often rooted in identity-based differences. Henri Tajfel and John Turner's social identity theory explains how individuals categorize themselves into functional groups (e.g., sales, operations, finance), creating in-group favoritism and out-group bias. Functional departments develop distinct mental models, performance metrics, and incentive systems, reinforcing identity boundaries.

Empirical work by Lisa H. Pelled (1996) demonstrated that functional diversity increases task conflict, particularly when functional goals and reward systems differ. This aligns with information-processing theory (e.g., Jay R. Galbraith, 1974), which suggests that cross-functional integration increases information richness but also cognitive strain, making disagreement more likely.

From an information-processing perspective, task conflict may be beneficial because it introduces non-redundant information. Daniel Kahneman's work on cognitive biases suggests that structured dissent can counteract overconfidence and confirmation bias. Similarly, Irving Janis (1972) warned against groupthink, arguing that absence of disagreement can reduce decision quality.

Ambrose and Rutherford (2016, 2018) applied social identity theory to S&OP, arguing that functional departments possess distinct goal orientations (e.g., revenue maximization vs. cost control). Such goal asymmetries create structural conditions for both task and relationship conflict. When managed constructively, disagreement improves plan quality; when identity threats escalate, collaboration deteriorates.

Similarly, Oliva and Watson (2009, 2011) demonstrated that systematic forecasting biases (e.g., sales over-forecasting, operations under-forecasting) reflect underlying functional incentives. These biases constitute a form of recurring task conflict. However, without structured reconciliation mechanisms, such conflict can transform into relational tension, leading to poor plan adherence and reduced performance.

Recent supply chain research further suggests that the boundary between constructive and destructive conflict depends on governance mechanisms, psychological safety, and incentive alignment (e.g., Edmondson, 1999; Simons & Peterson, 2000). In S&OP contexts, structured meetings, shared KPIs, and transparent data can channel task conflict into analytical debate rather than interpersonal friction.

Across these streams, functional conflict can be understood as:

1. Cognitive differentiation (diverse knowledge and perspectives)
2. Identity-based divergence (functional goals and incentives)
3. Information-processing tension (complex demand–supply trade-offs)

In integrative planning processes such as S&OP, task conflict is not a deviation but an inherent feature of reconciling competing objectives. The critical theoretical insight is not whether conflict occurs, but whether governance mechanisms transform cognitive disagreement into improved decision quality without allowing escalation into relational dysfunction.

1.3. Conflict in S&OP: typology and conceptualization

Conflict in the S&OP process is not accidental but structurally embedded in its cross-functional design. Because S&OP requires joint decision-making under uncertainty, it brings together actors with different goals, time horizons, information sets, and performance metrics. As a result, conflict tends to emerge most visibly during demand–supply reconciliation and plan finalization stages (Tuomikangas & Kaipia, 2014; Thomé et al., 2012).

1.3.1. Functional (task-related) conflict

Functional (task) conflict refers to issue-centered disagreement regarding goals, priorities, assumptions, and alternative courses of action within organizational decision-making processes (Jehn, 1995; Amason, 1996). In cross-functional settings such as Sales and Operations Planning

(S&OP), task conflict is structurally embedded due to the differentiated roles, incentive structures, and domain-specific expertise of participating functions. These structural differences lead to systematically varying interpretations of shared data and planning inputs (Ambrose et al., 2018; Tuomikangas & Kaipia, 2014).

Task conflict becomes particularly salient at key decision points that require explicit trade-offs, including demand forecasting, inventory target setting, capacity allocation, and plan approval. In these contexts, different functions advocate for alternatives consistent with their objectives and constraints, resulting in disagreement over appropriate assumptions, data interpretations, and decision criteria. Empirical evidence indicates that such disagreement is systematic rather than incidental. Oliva and Watson (2009, 2011) demonstrate that functional incentives shape forecast inputs, with sales functions tending to propose higher demand estimates aligned with revenue and service targets, while operations functions favor more conservative projections to ensure capacity stability and cost control. These differences frequently manifest in iterative "numbers negotiation," which reflects persistent divergence in task-related judgments.

Task conflict plays a critical role in structuring decision processes by introducing multiple perspectives into the evaluation of alternatives. Through the articulation and comparison of competing assumptions and priorities, it facilitates more comprehensive analysis and supports the identification of trade-offs inherent in cross-functional decision-making. Research further suggests that the contribution of task conflict depends on the presence of organizational conditions that enable it to be expressed and processed effectively. In particular, clear governance structures, standardized planning routines, and transparency of underlying data and assumptions are necessary to ensure that disagreement remains focused on task-relevant content and contributes to coherent decision outcomes (Stentoft et al.; Kreuter et al., 2022).

Accordingly, task conflict constitutes an inherent and necessary feature of S&OP as a cross-functional planning process. Rather than representing a deviation from effective coordination, it reflects the integration of diverse functional perspectives and the need to reconcile competing objectives within a unified plan. The central managerial challenge lies in structuring processes and governance mechanisms such that task-related disagreement is systematically incorporated into decision-making, thereby supporting alignment and consistency in planning outcomes.

1.3.2. Cognitive conflict

Cognitive conflict refers to differences in understanding, interpretation, and underlying mental models regarding information, causality, and problem framing within organizational decision-making processes (Jehn, 1995; Amason, 1996). It emerges when individuals or functional groups hold divergent beliefs about how systems operate, how data should be interpreted, or how future outcomes are likely to evolve. In complex, cross-functional contexts such as Sales and Operations Planning (S&OP), cognitive conflict is inherent due to the specialization of knowledge and the ambiguity of planning inputs. Distinct analytical frameworks, heuristics, and experiential bases shape how actors interpret forecasts, constraints, and performance indicators, resulting in systematically different representations of the same planning reality (Tuomikangas & Kaipia, 2014).

Cognitive conflict becomes particularly salient under conditions of uncertainty, incomplete information, and high interdependence. In such settings, differences in data interpretation and assumptions give rise to competing causal explanations and projections. For instance, variations in how demand signals are interpreted or how capacity flexibility is assessed reflect differences in underlying mental models rather than preferences. Empirical research shows that such divergence can lead to systematic variation in planning inputs, as actors rely on distinct reasoning processes when forming expectations and judgments (Oliva & Watson, 2009; 2011).

From a theoretical perspective, cognitive conflict contributes to decision quality by enhancing information processing. Divergent interpretations prompt more thorough evaluation of assumptions, facilitate the identification of hidden constraints, and reduce the likelihood of overconfidence in planning judgments (De Dreu & Weingart, 2003; De Wit et al., 2013). By requiring actors to articulate and justify their reasoning, cognitive conflict supports the comparison of alternative mental models and fosters the development of more robust, collectively validated assumptions. Its effectiveness, however, depends on the presence of organizational mechanisms that ensure transparency, structured dialogue, and iterative learning.

1.3.2. Affective (relationship) conflict

Affective (relationship) conflict refers to interpersonal incompatibilities, emotional tension, distrust, and friction that are experienced as personal rather than issue-based (Jehn, 1995). In terms of S&OP, this dysfunctional conflict typically arises when recurring task

disagreements are not resolved through transparent data, fair procedures, and mutually accepted decision rules, leading to blame-shifting and power struggles (Muzumdar & Fontanella, 2006). Once conflict becomes affective, it undermines the very mechanisms S&OP depends on, such as open information exchange, joint problem-solving, and commitment to a shared plan.

Simons and Peterson (2000) show that intragroup trust is pivotal: when trust is low, team members are more likely to misattribute task disagreement as personal attack, causing conflict to become relational. In S&OP settings, where all involved departments bring different metrics and incentives, low trust amplifies the risk that debates over forecast, inventory, capacity turn into identity-based accusations.

S&OP-specific evidence supports these mechanisms. Oliva and Watson (2011) observed that unresolved cross-functional disagreements, especially around forecasting and plan adherence, can trigger perceptions of obstructionism and self-interest, reducing willingness to share information and weakening commitment to the agreed plan (i.e., people "agree in the meeting, resist in execution"). Ambrose and Rutherford (2016) explicitly conceptualize S&OP as a team effectiveness problem and show that internal team factors (e.g., cohesion, autonomy) materially influence S&OP effectiveness; affective tension, by implication, erodes the team conditions needed for effective reconciliation and follow-through. More generally, research on intragroup conflict dynamics indicates that high-performing groups tend to sustain low relationship conflict over time, even when they engage in substantive debate.

1.3.3. Process conflict and other types

Process conflict refers to disagreements about how work should be carried out – roles, responsibilities, procedures, sequencing, and decision rights (Jehn & Mannix, 2001). This is highly relevant to S&OP because the process is not a one-off decision; it is a recurring governance routine in which clarity of ownership, escalation paths, and meeting discipline determine whether disagreements become productive or paralyzing.

Although S&OP research less frequently labels "process conflict" explicitly, it is implicitly present in work that discusses meeting architecture, data governance, and authority structures. Tuomikangas and Kaipia (2014) frame S&OP effectiveness through coordination mechanisms – formalization (rules, structures), performance management (KPIs, accountability), and socialization (shared understanding) – all of which are precisely the levers

that mitigate process conflict by clarifying roles and stabilizing interaction patterns. Likewise, empirical studies of S&OP implementation highlight that conflict is not only about numbers (forecasts, inventory, capacity) but also about the process by which those numbers are produced and approved: who prepares scenarios, who validates assumptions, who chairs the meeting, and who has final decision authority.

In this sense, process conflict often acts as a "conflict amplifier" in S&OP. When teams lack clear decision rights or meeting discipline, task disagreements (e.g., forecast assumptions) more easily escalate into relational tensions. Longitudinal conflict research supports this escalation logic: different conflict types can transform into each other over time, and poorly managed process friction can increase the probability that task disagreement becomes relationship conflict (Greer, Lindred, et al. 2008). For S&OP – where the same functions repeatedly negotiate trade-offs – this transformation risk is especially salient.

Within S&OP-specific literature, Danese et al. (2018) show that disagreements over S&OP design choices are not peripheral but central to the "evolutionary paths" firms follow. These design disputes frequently coexist with task conflict and can slow implementation because actors interpret process changes as shifts in influence (e.g., who controls the demand signal, who owns the final plan). In a similar vein, case-based evidence suggests that behavioral routines and agreed "rules of engagement" are necessary to prevent procedural debates from derailing substantive planning decisions (Tuomikangas & Kaipia, 2014). Studies that emphasize coordination mechanisms and contingency also imply that process conflict intensity varies with planning complexity and organizational context – e.g., the more interdependent and uncertain the environment, the greater the need for formalized roles and escalation rules to avoid process breakdown (Goh & Eldridge, 2019).

Beyond process conflict, S&OP papers occasionally reference additional conflict subtypes that are useful to name explicitly – even if they are sometimes collapsed into task or relationship categories:

- Resource conflict: competition over scarce capacity, budget, or inventory buffers. In S&OP, this shows up when functions advocate different allocations across products/markets or resist reallocation that threatens local KPIs;
- Priority (temporal) conflict: clashes between short-term service goals and longer-term efficiency or financial targets; or between tactical cycle decisions and

strategic initiatives. This becomes more visible as S&OP evolves toward IBP and strategic embedding;

- Authority (power) conflict: disputes about who "wins" when trade-offs are unresolved – often linked to escalation rules, executive sponsorship, and governance design.

Kreuter et al. (2022) note that S&OP research has increasingly drawn on broader organizational theories to explain divergent outcomes, which provides a useful basis for treating these types as theoretically meaningful.

1.4. Consensus in S&OP

1.4.1. Definition and types of consensus in S&OP

Consensus in S&OP is defined as the collective agreement and commitment of all participating functions to the demand-supply plan (Wallace & Stahl, 2006; Ling & Goddard, 1988). Literature distinguishes two primary types:

- True (or genuine) consensus, characterized by deep mutual understanding, open debate, and voluntary acceptance of trade-offs. Participants internalize the rationale behind decisions, leading to high levels of ownership and execution fidelity (Oliva & Watson, 2011; Tuomikangas & Kaipia, 2014);

- Forced (or superficial) consensus – superficial agreement driven by time pressure, hierarchical dominance, avoidance of conflict, or groupthink. This form often results in lack of real commitment, hidden dissent, and subsequent plan deviations (Muzumdar & Fontanella, 2006; Stentoft et al., 2020).

Oliva and Watson (2011) empirically showed that true consensus emerges when task conflict is constructively managed, while forced consensus frequently follows unresolved or escalated conflict, leading to poor plan adherence.

Consensus in S&OP operates on two interrelated levels:

1. Consensus on content – agreement on the substance of the plan (demand forecast numbers, inventory targets, production volumes, financial implications). This is the most visible and frequently discussed form in practitioner literature (Wallace & Stahl, 2006; Grimson & Pyke, 2007).

2. Consensus on process – shared understanding and acceptance of how decisions are made (meeting structure, roles, escalation paths, data sources, decision rules). Process consensus is a prerequisite for content consensus and is often undermined by unclear governance or power imbalances (Danese et al., 2018; Hulthén et al., 2016).

Ambrose and Rutherford (2016) found that effective S&OP teams achieve both types simultaneously through structured facilitation, shared metrics, and psychological safety, which reduce process-related friction and enable deeper content alignment.

1.4.2. Theoretical foundations of consensus achievement

The achievement of consensus in Sales and operations planning can be grounded in several complementary theoretical streams. Taken together, these perspectives emphasize that consensus is not automatic in cross-functional planning; it is an outcome of deliberate governance, information architecture, and social processes that help functions reconcile divergent interests and interpretations.

To begin with, Consensus in S&OP can be viewed as a form of integrative bargaining, where parties move beyond positional "win–lose" debates (e.g., service vs. cost) and search for mutually beneficial solutions through trade-off analysis and creative options (Pruitt & Carnevale, 1993). In the S&OP domain, Tuomikangas and Kaipia (2014) frame S&OP as a coordination process in which agreement is achieved through mechanisms such as formalization, performance management, and socialization.

Besides, S&OP teams consist of functional subgroups with distinct identities and "thought worlds," making consensus vulnerable to silo behavior. Social identity theory predicts that consensus improves when a superordinate identity (the firm-level goal) becomes more salient than subgroup identities (functions). Ambrose and Rutherford (2016) show that internal team factors such as cohesion and decision autonomy are key predictors of S&OP effectiveness, consistent with a team-effectiveness lens. Ambrose et al. (2018) further demonstrate that fostering superordinate identity supports integration and improves S&OP performance, clarifying why consensus formation is partly a social/identity process rather than purely analytical.

Moreover, Consensus is also an information-processing outcome: agreement becomes more likely when planning information is rich, transparent, and jointly interpreted, reducing ambiguity and preventing "numbers negotiation." Oliva and Watson's S&OP case evidence

shows how cross-functional alignment and consensus forecasting practices can manage functional biases and stabilize agreement around a shared forecast and plan. More broadly, Goh and Eldridge (2019) empirically find that information acquisition/processing and strategic alignment mechanisms are strongly associated with superior S&OP outcomes, supporting the idea that consensus is enabled by high-quality information flows and shared interpretive routines. Recent syntheses also highlight a shift toward theory-informed explanations of why S&OP outcomes diverge across contexts, strengthening the argument that consensus depends on underlying organizational mechanisms, not just process presence.

Finally, contingency theory suggests that the appropriate degree and form of consensus depends on context: demand volatility, supply uncertainty, product/industry characteristics, and planning maturity shape both what must be agreed and how agreement can realistically be achieved. Kristensen and Jonsson (2018) explicitly call for context-based S&OP research, arguing that S&OP design must adapt to contextual variables rather than assuming a universal "best practice." Complementing this, Neto et al. (2022) propose an S&OP implementation meta-framework emphasizing maturity evolution and commitment-building over time.

These theories collectively suggest that consensus is not automatic but requires deliberate process design, leadership, and cultural support.

1.4.3. Role of Consensus in Commitment and Plan Execution

S&OP consensus is not merely the formal closure of a meeting but a critical mechanism linking planning decisions to coordinated execution. The literature increasingly suggests that the quality of consensus determines whether S&OP functions as an integrative governance process or degenerates into symbolic planning (Tuomikangas & Kaipia, 2014; Thomé et al., 2012).

From an organizational behavior perspective, consensus fosters psychological ownership, collective accountability, and internalized commitment to decisions. When functional representatives perceive that their perspectives have been heard and incorporated, they are more likely to support and defend the final plan during execution. This mechanism aligns with theories of participative decision-making, which link involvement in decision processes to higher commitment and reduced resistance (Locke & Schweiger, 1979; Korsgaard et al., 1995).

In the S&OP context, Stentoft et al. (2020) emphasize that behavioral alignment and constructive interaction patterns are central to S&OP effectiveness. Similarly, Goh and Eldridge (2019) show that coordination mechanisms mediate the relationship between S&OP practices and supply chain performance. When consensus is genuine, functional actors are less likely to revert to silo-driven behavior after meetings and more likely to uphold agreed targets.

This also relates to procedural justice theory (Thibaut & Walker, 1975; Colquitt et al., 2001): when decision processes are perceived as fair and transparent, individuals demonstrate stronger compliance and discretionary effort. In S&OP cycles, perceived fairness in reconciliation discussions strengthens commitment to the finalized plan.

Consensus directly influences execution fidelity, defined as the extent to which agreed plans are implemented without hidden adjustments or local overrides. Oliva and Watson (2011) demonstrated that unresolved forecasting conflicts often result in "shadow plans" and informal corrections outside formal S&OP structures, undermining plan credibility. By contrast, when consensus is achieved through transparent trade-off reasoning, plan adherence improves.

Empirical research supports this link. Thomé et al. (2014) found that mature S&OP practices positively correlate with manufacturing operational performance, partly through improved coordination and alignment. Seeling et al. (2022) further highlight that finance integration and structured reconciliation strengthen accountability, reducing deviations between planned and executed outcomes.

Execution fidelity manifests operationally through improved forecast accuracy, more stable inventory levels, better capacity utilization, and enhanced service performance. These outcomes are not solely technical; they depend on whether functions trust the plan sufficiently to commit resources accordingly.

Beyond routine execution, consensus plays a crucial role in organizational resilience. In volatile and uncertain environments, rapid adjustment requires coordinated cross-functional action. Without prior consensus and shared mental models, disruptions tend to trigger defensive silo behavior and delayed responses.

Recent S&OP and supply chain resilience literature suggests that integrative planning processes enhance the firm's ability to respond to uncertainty through synchronized decision-making and faster information flow (Kalla et al., 2021; Fakhry et al., 2020). By fostering shared

situational awareness and collective responsibility, consensus reduces coordination costs during disruptions.

From a dynamic capabilities perspective (Teece, 2007), consensus contributes to the "seizing" and "reconfiguring" stages of adaptation by enabling aligned resource reallocation decisions. In mature S&OP or IBP systems, scenario planning and executive-level agreement further enhance adaptive speed.

Importantly, the literature distinguishes between genuine consensus and forced or superficial agreement. Superficial or false consensus often leads to silent resistance and plan erosion. Kreuter et al. (2022) note that divergent S&OP outcomes across organizations frequently reflect differences in how deeply integration mechanisms are institutionalized.

Goh and Eldridge (2019) provide empirical evidence that organizations employing robust coordination mechanisms outperform those relying on nominal alignment. Their findings imply that consensus must be embedded in structured processes, shared KPIs, and cultural norms to translate into performance gains.

Collectively, the literature suggests that consensus serves as a behavioral transmission mechanism between planning and performance. It converts analytical outputs (forecasts, capacity plans, inventory targets) into coordinated action by generating ownership, trust, and accountability. High-quality consensus enhances execution fidelity and resilience, while weak or symbolic consensus weakens plan credibility and operational stability.

1.5. Mechanisms of Influence of Conflict and Consensus on Firm Performance

The impact of conflict and consensus on firm performance within Sales and Operations Planning (S&OP) is neither immediate nor linear. Rather, it unfolds through a set of behavioral, processual, and organizational mechanisms that mediate how cross-functional interaction translates into operational and financial outcomes. The literature increasingly suggests that constructive task conflict enhances the quality of decision inputs, while high-quality consensus secures the fidelity of execution outputs (Thomé et al., 2014; Tuomikangas & Kaipia, 2014).

The strength and direction of these mechanisms are moderated by contextual variables:

- Industry characteristics: Process industries with high fixed costs and long lead times experience intensified capacity-related tensions, whereas discrete manufacturing often faces

greater demand volatility (Noroozi & Wikner, 2017). Industry structure shapes both conflict intensity and the feasibility of consensus.

- Firm size and structural complexity: Large multinational organizations typically exhibit stronger silo differentiation and require more formalized governance and escalation structures to convert conflict into coordinated action (Friedli et al., 2015).

- Environmental volatility (VUCA context): Under high uncertainty, both constructive conflict and adaptive consensus become more valuable, as firms must frequently revise plans while maintaining coordination (Fakhry et al., 2020).

- Digitalization and analytics integration: Advanced planning systems, real-time data sharing, and analytics reduce information asymmetry and shift conflicts from opinion-based to data-driven debates (Jazairy et al., 2024; Ouamalich & El Hachemi, 2021). Digital transparency can facilitate consensus, but only when governance mechanisms support shared interpretation rather than data overload.

1.5.1. Behavioral mechanisms

At the behavioral level, constructive task conflict stimulates deeper information processing, assumption testing, and perspective integration. Organizational conflict research shows that cognitive disagreement, when separated from affective tension, promotes analytical rigor and reduces groupthink (Amason, 1996; De Wit et al., 2013). In S&OP, this manifests as more realistic forecasting, explicit articulation of trade-offs, and greater transparency regarding constraints (Oliva & Watson, 2009, 2011).

However, the positive effect of task conflict is contingent upon the presence of trust and facilitative norms. Simons and Peterson (2000) demonstrate that intragroup trust prevents task conflict from escalating into relationship conflict, thereby preserving its constructive potential. In the S&OP context, Ambrose et al. (2018) similarly show that team cohesion and shared identity strengthen the link between structured debate and decision effectiveness.

Consensus, in turn, operates through commitment mechanisms. Participative decision-making literature consistently finds that involvement in collective decisions enhances psychological ownership and compliance (Locke & Schweiger, 1979; Korsgaard et al., 1995). Within S&OP, high-quality consensus increases adherence to agreed plans, reduces

opportunistic deviations, and strengthens cross-functional accountability (Stentoft et al., 2020; Goh & Eldridge, 2019).

1.5.2. Process Mechanisms

At the process level, the influence of conflict and consensus on firm performance operates through their impact on trade-off management, decision quality, and execution fidelity. S&OP is fundamentally a structure for reconciling competing objectives such as service versus cost, responsiveness versus efficiency. The quality of these reconciliations determines the robustness of planning outputs and, ultimately, operational performance (Tuomikangas & Kaipia, 2014; Thomé et al., 2012).

Constructive task conflict improves trade-off transparency by surfacing divergent assumptions and risk perceptions. When cross-functional disagreements remain cognitive rather than relational, they enhance analytical comprehensiveness and reduce local optimization (Amason, 1996). Through structured evaluation, which include scenario analysis, KPI alignment, and financial reconciliation, S&OP transforms conflict into more balanced and feasible planning alternatives. This mechanism directly affects decision quality. Empirical research shows that mature S&OP practices are associated with improved operational performance, partly because cross-functional debate strengthens feasibility and alignment (Thomé et al., 2014). Similarly, integrating finance into the process enhances value-based decision discipline (Seeling et al., 2022).

A critical intermediate outcome is forecast accuracy and plan realism. Functional forecast biases are well documented (Oliva & Watson, 2009). Constructive conflict, when managed through transparent information sharing and structured reconciliation, reduces bias and improves demand–capacity alignment. In turn, more accurate and credible plans reduce inventory imbalance, expediting, and schedule instability.

However, analytical quality alone is insufficient. Consensus secures execution fidelity. Genuine agreement increases psychological ownership and reduces post-meeting deviations, ensuring that analytically sound plans are actually implemented (Goh & Eldridge, 2019).

1.5.3. Organizational Mechanisms

Beyond behavioral and processual pathways, the influence of conflict and consensus on firm performance is shaped by organizational-level mechanisms embedded in S&OP

governance. These mechanisms determine whether cross-functional tension becomes a source of integrative learning or a trigger for fragmentation.

S&OP maturity, as one of the major ones, reflects the degree to which planning is formalized, integrated, performance-driven, and strategically embedded (Grimson & Pyke, 2007; Danese et al., 2018; Neto et al., 2022). In low-maturity contexts, S&OP tends to be ad hoc, data fragmented, and authority ambiguous. Those are conditions under which conflict easily escalates into relational tension and consensus remains superficial.

In contrast, high-maturity systems institutionalize structured cycles, standardized KPIs, clear escalation rules, and integrated information systems. These features reduce ambiguity and create predictable arenas for constructive debate. From a contingency perspective (Kristensen & Jonsson, 2018), maturity enhances the organization's capacity to absorb and process cross-functional disagreement without destabilizing coordination. Thus, maturity operates as a buffering mechanism: it stabilizes interaction patterns and transforms conflict into structured analytical input.

Leadership involvement is a critical organizational moderator. Executive sponsorship elevates S&OP from a functional coordination exercise to a strategic governance forum (Thomé et al., 2012). When senior leaders actively participate, trade-offs are reframed in enterprise-wide value terms rather than silo metrics. This reduces power-based bargaining and encourages integrative problem-solving.

From a strategic alignment perspective, leadership provides vertical integration between tactical planning and corporate objectives. It also enforces accountability: consensus is not merely symbolic but linked to performance evaluation and resource allocation (Seeling et al., 2022). Without visible executive ownership, consensus may lack authority, increasing the likelihood of post-meeting deviations.

Moreover, leadership behavior influences conflict climate. Leaders who model openness and evidence-based reasoning create psychological safety, enabling constructive task conflict while minimizing relational escalation.

The structure of S&OP meetings constitutes another crucial organizational mechanism. Tuomikangas and Kaipia (2014) identify formalization and coordination mechanisms as central to S&OP effectiveness. Clear meeting architecture ensures that conflict is processed

systematically: demand review precedes supply reconciliation; financial implications are evaluated before final approval; unresolved issues follow predefined escalation paths.

Well-designed meeting structures reduce process conflict and prevent decision ambiguity. They also increase decision transparency, strengthening commitment and execution fidelity. Conversely, poorly structured meetings encourage informal negotiations, dominance by powerful functions, and erosion of trust.

1.5.4. Analytical (technological) mechanisms

Analytical or technological mechanisms refer to the use of data, models, and information systems to support decision-making and facilitate alignment within the S&OP process. The literature highlights the increasing role of forecasting systems, optimization models, simulation tools, and integrated planning platforms such as Advanced Planning Systems and Integrated Business Planning solutions (Lapide, 2005; Wallace and Stahl, 2006). Empirical and modelling studies demonstrate how these tools enhance forecast accuracy and enable structured evaluation of trade-offs under uncertainty (Feng et al., 2010; Aiassi et al., 2020; Abay et al., 2024; Amico et al., 2025). Moreover, analytical mechanisms contribute to reducing information asymmetry and mitigating information conflict by supporting data-driven consensus formation across functions (Oliva and Watson, 2009, 2011; Cassettari et al., 2017).

At the same time, recent research emphasizes the growing role of advanced digital technologies, including artificial intelligence and digital supply chain solutions, in strengthening analytical capabilities and improving responsiveness in S&OP (Jazairy et al., 2024; Ouamalich & El Hachemi, 2025). However, the literature consistently underlines that analytical tools alone are insufficient to ensure effective S&OP outcomes. Their effectiveness depends on data quality, system integration, and the ability of managers to interpret and use insights within cross-functional decision-making processes (Goh & Eldridge, 2019; Kreuter et al., 2022). Consequently, analytical mechanisms are most effective when complemented by behavioral and organizational practices that foster trust, transparency, and collaboration (Danese et al., 2018; Tuomikangas and Kaipia, 2014).

Chapter 2. Methodology

2.1. Systematic literature review

This dissertation employs a systematic literature review (SLR) as the primary research method to address the research questions formulated based on the Chapter 1. An SLR is chosen because it provides a rigorous, transparent, and reproducible approach to identifying, evaluating, and synthesizing existing evidence on a specific topic. In the context of sales and operations planning, where the literature is fragmented across operations management, supply chain, and organizational behavior domains, an SLR enables a structured synthesis of conceptualizations, mechanisms, and empirical findings related to conflict and consensus.

The data collection for this systematic literature review was conducted through a structured multi-step process aimed at ensuring a comprehensive, transparent, and reproducible selection of relevant studies within the S&OP domain. The methodology was designed around a systematic search procedure, beginning with the formulation of research questions related to conflict, consensus, and performance in S&OP, and resulting in a final corpus of articles for in-depth analysis. The overall process consisted of the following phases:

1) Definition of research questions and development of search strings;
2) Database search and extraction of relevant publications;
3) Multi-stage screening and selection of articles based on predefined inclusion criteria;
4) Detailed analysis and synthesis of findings.

The application of the systematic literature review methodology is particularly relevant for this thesis due to several challenges identified in the S&OP literature. First, research on behavioral aspects such as conflict and consensus remains fragmented and underdeveloped, with most studies focusing predominantly on process design, performance outcomes, and quantitative modelling. Existing contributions are dispersed across different streams, including supply chain management, operations management, and organizational behavior, making it difficult to obtain a coherent overview of the field. By systematically identifying and analyzing how conflict and consensus are conceptualized, operationalized, and linked to performance, this review aims to provide a structured understanding of these phenomena within S&OP.

Furthermore, a key objective of the systematic literature review is to identify gaps and propose directions for future research. By synthesizing existing knowledge, this study highlights underexplored areas, thereby contributing to the development of a more comprehensive research agenda in the S&OP domain.

2.1.1. Defining research questions and developing key words

The systematic literature review is structured around a set of clearly defined research questions that directly address the theoretical gaps identified in Chapter 1. These questions were iteratively refined based on the conceptual foundations of S&OP as a cross-functional process (Section 1.2), the typology of conflict (Section 1.3), the forms and role of consensus (Section 1.4), and the mediating mechanisms linking these constructs to firm performance (Section 1.5). The final set of research questions is as follows:

- RQ1: What types of conflict are conceptualized and described in the literature, and how do they manifest in the context of S&OP?

- RQ2: What forms of consensus are conceptualized and described in the literature, and how are they achieved and characterized in the context of S&OP?

- RQ3: Through which behavioral, processual, and organizational mechanisms do conflict and consensus in S&OP influence the operational, financial, and supply chain performance of the firm?

- RQ4: What empirical evidence exists regarding the relationship between the type/level of conflict, the quality of consensus in S&OP, and various dimensions of firm performance?

- RQ5: What are the key gaps in the S&OP literature concerning conflict and consensus, and what directions for future research do they suggest?

This set of questions follows a logical progression common in systematic reviews in operations and supply chain management: descriptive (what is known), explanatory (how it works), evaluative (to what extent), and forward-looking (what is missing). It ensures comprehensive coverage of both the conceptual foundations and the empirical state of the field.

To operationalize the research questions, a structured set of key words and phrases was developed based on the theoretical constructs outlined in Chapter 1 and pilot-tested for relevance and coverage. The key words were grouped into thematic clusters corresponding to

the core elements of the RQs: S&OP terminology, conflict-related terms, consensus-related terms, mechanism/process terms, performance outcomes, and empirical/methodological indicators.

To cover publications related to S&OP only, there was used the following search query for all the search strings: "Sales and Operations Planning" OR "Sales & Operations Planning" OR "S&OP" OR "sales and operations planning" OR "sales & operations planning".

The difficulty in working with the topic is significant limitation of documents database. To compare with, the search string TITLE-ABS-KEY ("supply chain" OR "Supply Chain") gives almost 200.000 documents, when the mentioned before S&OP reach query founds 441 only. Thus, it is necessary to compose the final search strings to each research question

The final search strings were designed to balance comprehensiveness and specificity, ensuring alignment with the research questions and the theoretical scope of the dissertation.

2.1.2. Database search and data extraction

The literature search was conducted exclusively in the Scopus database (Elsevier), which was selected as the primary source due to its extensive coverage of peer-reviewed journals in operations management, supply chain management, business, management, and related social sciences disciplines.

The search was performed on February 10, 2026, ensuring the most up-to-date coverage of publications available in the database at the time of writing. No additional databases (e.g., Web of Science, Google Scholar) were used for the initial search to maintain methodological consistency and avoid duplicate management challenges.

Search strings were developed separately for each research question to ensure maximum relevance while minimizing noise. The final search strings are presented in the Table 1 below.

Search string		Number of documents found
RQ 1	(TITLE-ABS-KEY (("Sales and Operations Planning" OR "Sales & Operations Planning" OR "S&OP" OR "sales and operations planning" OR "sales & operations planning") AND (conflict OR disagreement OR tension OR issue)))	56

Search string		Number of documents found
RQ 2	(TITLE-ABS-KEY (("Sales and Operations Planning" OR "Sales & Operations Planning" OR "S&OP" OR "sales and operations planning" OR "sales & operations planning") AND (consensus OR decision OR "trade-off" OR alignment OR coordination)))	167
RQ 3	(TITLE-ABS-KEY (("Sales and Operations Planning" OR "Sales & Operations Planning" OR "S&OP" OR "sales and operations planning" OR "sales & operations planning") AND (conflict OR disagreement OR tension OR issue OR consensus OR decision OR "trade-off" OR alignment OR coordination) AND (mechanism OR pathway OR mediator OR moderator OR coordination OR alignment OR integration OR "trade-off" OR "decision making") AND (performance OR outcome OR effect OR impact OR influence OR result)))	80
RQ 4	(TITLE-ABS-KEY (("Sales and Operations Planning" OR "Sales & Operations Planning" OR "S&OP" OR "sales and operations planning" OR "sales & operations planning") AND (conflict OR disagreement OR tension OR issue OR consensus OR decision OR "trade-off" OR alignment OR coordination) AND (empirical OR quantitative OR qualitative OR case OR survey OR interview OR correlation OR regression OR KPI OR metric OR "financial impact" OR "operational impact") AND (performance OR outcome OR effect OR impact OR influence OR result)))	70
RQ 5	(TITLE-ABS-KEY (("Sales and Operations Planning" OR "Sales & Operations Planning" OR "S&OP" OR "sales and operations planning" OR "sales & operations planning") AND ("literature review" OR "systematic review" OR "research synthesis" OR SLR OR "research agenda" OR gap OR "future research" OR "future direction" OR limitation OR "research gap") AND (conflict OR consensus OR "cross-functional" OR integration OR alignment OR coordination OR "group dynamics")))	38

Table 1. Correspondence of used search strings with obtained results

2.1.3. Multi-step screening

The article selection process followed a structured, multi-stage approach to ensure the relevance and quality of the final sample. Initially, a total of 411 documents were identified through database search.

In the first step, duplicate records were removed using the Mendeley reference management software, resulting in a refined dataset of 213 unique documents for further analysis.

Subsequently, a first screening phase was conducted based on predefined inclusion criteria. The criteria were established to ensure the academic rigor and relevance of the selected studies and included the following:

- Document type: journal articles and reviews;
- Language: English;
- Publication period: 2000–2026.

The time restriction was applied to capture the evolution of sales and operations planning as a cross-functional and strategic process, which has been primarily developed and studied in the 21st century. After applying these criteria, the sample was reduced to 119 articles.

The second screening phase involved a detailed assessment of the abstracts of the remaining studies. This step aimed to evaluate the conceptual relevance of each article to the research topic. A particular attention was paid to whether the studies addressed behavioral, organizational, or cross-functional aspects of S&OP, including conflict and consensus dynamics. As a result, the dataset was further narrowed down to 59 articles.

During this stage, articles were excluded if they focused exclusively on mathematical optimization models, forecasting algorithms, or technical system implementations without explicit consideration of behavioral or cross-functional dynamics. This exclusion criteria was critical to maintain alignment with the research focus on conflict and consensus in S&OP processes.

Finally, an additional set of 10 relevant articles was identified through backward and forward citation tracking, as well as manual search. These studies were included due to their strong conceptual or empirical contribution to the research topic.

In total, the final sample for the systematic literature review consisted of 69 articles, which were deemed highly relevant for addressing the research questions. The overall selection process is summarized in Figure 1.

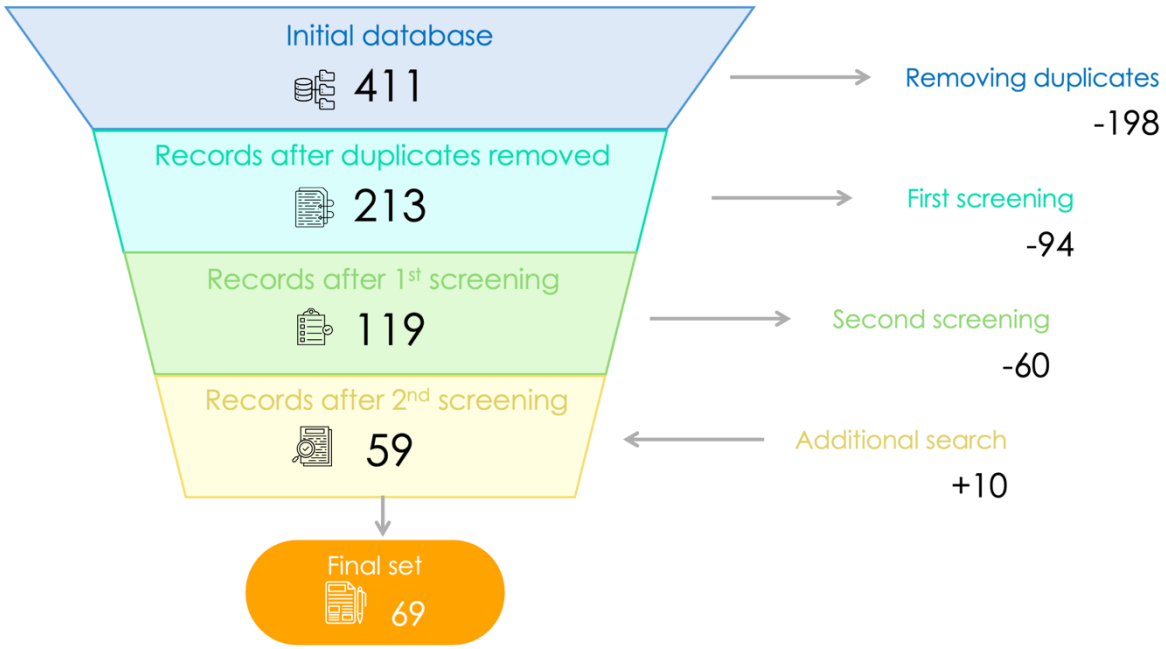


Figure 1. Article selection process

The final list of literature chosen for SLR is presented in Table 2. The list of articles excluded from the final list after the Second screening phase is presented in the Appendix.

Author(s)	Title	Year	Source title
Abay, Y.; Kaihara, T.; Kokuryo, D.	A Discrete-Event Simulation Study of Multi-Objective Sales and Operation Planning Under Demand Uncertainty: A Case of the Ethiopian Automotive Industry	2024	International Journal of Automation Technology
Aiassi, R.; Sajadi, S.M.; Hadji-Molana, S.M.; Zamani Babgohari, A.	Designing a stochastic multi-objective simulation-based optimization model for sales and operations planning in built-to-order environment with uncertain distant outsourcing	2020	Simulation Modelling Practice and Theory
Ali, M.B.; D' Amours, S.; Gaudreault, J.; Carle, M.-A.	Integrating revenue management and sales and operations planning in a make-to-stock environment: Softwood lumber case study	2019	INFOR
Alvekrans, A.-L.; Lantz, B.; Rosén, P.; Siljemyr, L.; Snygg, J.	From knowledge to decision – a case study of sales and operations planning in health care	2016	Production Planning and Control
Ambrose, S.C.; Rutherford, B.N.	Sales and operations planning (S & OP): A group effectiveness approach	2016	Academy of Marketing Studies Journal
Amico, C.; Difrancesco, R.M.; Cigolini, R.	Enhancing supply chain planning via quantitative approaches in make-to-	2025	Review of Managerial Science

Author(s)	Title	Year	Source title
	stock industries with uncertain demand		
Bagni, G.; Marçola, J.A.	Evaluation of the maturity of the S&OP process for a written materials company: A case study	2019	Gestao e Producao
Benayiba, H.; Manresa, A.; de Castro Vila, R.D.	Simplifying sales and operations planning: Analysing the influence of process steps on soft issues using design and engineering methodology for organisations	2025	Intangible Capital
Bhalla, S.; Alfnes, E.; Hvolby, H.-H.	Tools and practices for tactical delivery date setting in engineer-to-order environments: a systematic literature review	2023	International Journal of Production Research
Bhalla, S.; Alfnes, E.; Hvolby, H.-H.; Oluyisola, O.	Sales and operations planning for delivery date setting in engineer-to-order manufacturing: a research synthesis and framework	2023	International Journal of Production Research
Biswas, S.; Bandyopadhyay, G.; Pamucar, D.; Sanyal, A.	A decision making framework for comparing sales and operational performance of firms in emerging market	2022	International Journal of Knowledge-Based and Intelligent Engineering Systems
Bozutti, D.F.; Espôsto, K.F.	Sales and Operations Planning: a comparison between the demand-driven and traditional approaches	2019	International Journal of Production Management and Engineering
Cassettari, L.; Bendato, I.; Mosca, M.; Mosca, R.	A new stochastic multi source approach to improve the accuracy of the sales forecasts	2017	Foresight
Choudhury, A.; Behl, A.; Sheorey, P.A.; Pal, A.	Digital supply chain to unlock new agility: a TISM approach	2021	Benchmarking
Costa-Affonso, R.; Marcotte, F.; Grabot, B.	Sales and operations planning: The supply chain pillar	2008	Production Planning and Control
Dal Forno, A.J.D.; da Silva, R.; Hornburg, S.; Kipper, L.; Marangoni, C.	Development of a diagnostic tool to measure the implementation level of Sales and Operations Planning (S&OP) in textile companies	2024	Production
Danese, P.; Molinaro, M.; Romano, P.	Managing evolutionary paths in Sales and Operations Planning: key dimensions and sequences of implementation	2018	International Journal of Production Research
Dreyer, H.C.; Kiil, K.; Dukovska-Popovska, I.; Kaipia, R.	Proposals for enhancing tactical planning in grocery retailing with S&OP	2018	International Journal of Physical Distribution and

Author(s)	Title	Year	Source title
			Logistics Management
DuHadway, S.; Dreyfus, D.	A Simulation for Managing Complexity in Sales and Operations Planning Decisions	2017	Decision Sciences Journal of Innovative Education
Fakhry, D.; Oger, R.; Lauras, M.; Pellegrin, V.	Managing uncertainties within sales and operations planning (S&OP): a systematic literature review	2025	Supply Chain Forum
Feng, Y.; D'Amours, S.; Beauregard, R.	Simulation and performance evaluation of partially and fully integrated sales and operations planning	2010	International Journal of Production Research
Furlan de Assis, R.; Santa-Eulalia, L.A.; Armellini, F.; Anholon, R.; Rampasso, I.S.; Guerrini, F.M.; Godinho Filho, M.; de Paula Ferreira, W.	A system dynamics approach to unlock the complexity of the S&OP in virtual enterprises	2023	Enterprise Information Systems
Godsell, J.; Birtwistle, A.; van Hoek, R.	Building the supply chain to enable business alignment: Lessons from British American Tobacco (BAT)	2010	Supply Chain Management
Goh, S.H.; Eldridge, S.	Sales and operations planning culture and supply chain performance: the mediating effects of five coordination mechanisms	2024	Production Planning and Control
Goh, S.H.; Eldridge, S.	Sales and Operations Planning: The effect of coordination mechanisms on supply chain performance	2019	International Journal of Production Economics
Goh, S.H.; Eldridge, S.	New product introduction and supplier integration in sales and operations planning: Evidence from the Asia Pacific region	2015	International Journal of Physical Distribution and Logistics Management
Hulthén, H.; Näslund, D.; Norrman, A.	Framework for measuring performance of the sales and operations planning process	2016	International Journal of Physical Distribution and Logistics Management
Jazairy, A.; Shurrab, H.; Chedid, F.	Impact pathways: walking a tightrope-unveiling the paradoxes of adopting artificial intelligence (AI) in sales and operations planning	2024	International Journal of Operations and Production Management
Kalla, C.; Scavarda, L.F.; Hellingrath, B.	Integrating supply chain risk management activities into sales and operations planning	2025	Review of Managerial Science

Author(s)	Title	Year	Source title
Kim, S.; Shin, K.	Comparative Analysis of Key Success Factors in S&OP: Focusing on Manufacturing and Retail Industry in South Korea	2024	Systems
Kjellsdotter Ivert, L.K.; Dukovska-Popovska, I.; Fredriksson, A.; Dreyer, H.C.; Kaipia, R.	Contingency between S&OP design and planning environment	2015	International Journal of Physical Distribution and Logistics Management
Kjellsdotter Ivert, L.K.; Jonsson, P.	The potential benefitsof advanced planning and scheduling systems in sales and operations planning	2010	Industrial Management and Data Systems
Kreuter, T.; Scavarda, L.F.; Tavares Thomé, A.M.T.; Hellingrath, B.; Seeling, M.	Empirical and theoretical perspectives in sales and operations planning	2022	Review of Managerial Science
Kristensen, J.; Jonsson, P.	Context-based sales and operations planning (S&OP) research: A literature review and future agenda	2018	International Journal of Physical Distribution and Logistics Management
Lahloua, N.; Elbarkany, A.; El Khalfi, A.	Sales and operations planning (S&OP) concepts and models under constraints: Literature review	2018	International Journal of Engineering Research in Africa
Marcotte, F.; Grabot, B.; Costa-Affonso, R.	Cooperation models for supply chain management	2009	International Journal of Logistics Systems and Management
Neto, J.R.; Vieira, G.B.B.; Vidor, G.; Fani, V.; Bandinelli, R.; Sellitto, M.A.	Integrating portfolio decisions into sales and operations planning: a literature review and novel framework for holistic decision-making	2025	Review of Managerial Science
Noroozi, S.; Wikner, J.	A modularized framework for sales and operations planning with focus on process industries	2016	Production and Manufacturing Research
Nyman, H.J.; Tschirch, F.; Hongell, L.	Linking strategy to tactical planning – using integrated business planning (IBP) as a strategy implementation process	2025	International Journal of Physical Distribution and Logistics Management
Oliva, R.; Watson, N.	Cross-functional alignment in supply chain planning: A case study of sales and operations planning	2011	Journal of Operations Management
Oliva, R.; Watson, N.	Managing functional biases in organizational forecasts: A case study of consensus forecasting in supply chain planning	2009	Production and Operations Management

Author(s)	Title	Year	Source title
Ouamalich, R.; El Hachemi, N.	Supply Chain Management, Steering and Decision-Making Through the S&OP Process in the Era of Digitalization and Artificial Intelligence: A Literature Review	2025	Engineering Proceedings
Pedroso, C.B.; del Rosso Calache, L.D.D.R.; Lima Junior, F.R.L.; Lago da Silva, A.L.; Carpinetti, L.C.R.	Proposal of a model for sales and operations planning (S & OP) maturity evaluation	2017	Production
Pedroso, C.B.; Lago da Silva, A.L.; Tate, W.L.	Sales and Operations Planning (S&OP): Insights from a multi-case study of Brazilian Organizations	2016	International Journal of Production Economics
Plank, R.E.; Hooker, R.	Sales and operations planning: Using the internet and internet-based tools to further supply chain integration	2014	Journal of Research in Interactive Marketing
Romão, L.O.P.; Scavarda, L.F.; Seeling, M.	Sales & operations planning: Case study on the engineer-to-order production model in the entertainment industry*	2021	Brazilian Journal of Operations and Production Management
Samouche, H.; Elbarkany, A.; El Khalfi, A.	Improving Alignment Between Supply and Demand Through The Analysis of Sales and Operations Planning (S&OP)	2023	International Journal of Industrial Engineering and Production Research
Seeling, M.; Kreuter, T.; Scavarda, L.F.; Tavares Thomé, A.M.T.; Hellingrath, B.	The role of finance in the sales and operations planning process: a multiple case study	2022	Business Process Management Journal
Shanahan, J.; Adam, F.; O'Reilly, S.	A Research Agenda for Strategic Alignment in Sales and Operations Planning	2025	IEEE Engineering Management Review
Stentoft, J.; Vagn Freytag, P.V.; Mikkelsen, O.S.	The S&OP process and the influence of personality and key behavioral indicators: insights from a longitudinal case study	2020	International Journal of Physical Distribution and Logistics Management
Tavares Thomé, A.M.T.; Scavarda, L.F.; Fernandez, N.S.; Scavarda, A.J.	Sales and operations planning: A research synthesis	2012	International Journal of Production Economics
Tavares Thomé, A.M.T.; Scavarda, L.F.; Fernandez, N.S.; Scavarda, A.J.	Sales and operations planning and the firm performance	2012	International Journal of Productivity and Performance Management
Tavares Thomé, A.M.T.; Sousa, R.S.; Scavarda, L.F.	Complexity as contingency in sales and operations planning	2014	Industrial Management and Data Systems

Author(s)	Title	Year	Source title
Tavares Thomé, A.M.T.; Sousa, R.S.; Scavarda, L.F.	The impact of sales and operations planning practices on manufacturing operational performance	2014	International Journal of Production Research
Tuomikangas, N.; Kaipia, R.	A coordination framework for sales and operations planning (S&OP): Synthesis from the literature	2014	International Journal of Production Economics
Vaz, A.; Tendulkar, A.; Mansori, S.; Rajagopal, P.	Systematic journal review on S and OP publications and avenues for future research to support smart industries	2019	International Journal of Supply Chain Management
Wagner, S.M.; Ullrich, K.K.R.; Transchel, S.	The game plan for aligning the organization	2014	Business Horizons
Wu, Z.; Englyst, L.; Møller, C.	Exploring adjustment mechanisms in the sales and operations planning process: an industrial case study	2025	International Journal of Operations and Production Management
Yu, L.; Mouritsen, J.	Accounting, simultaneity and relative completeness: The sales and operations planning forecast and the enactment of the 'demand chain'	2020	Accounting, Organizations and Society
Kjellsdotter Ivert, L.K.; Jonsson, P.	When should advanced planning and scheduling systems be used in sales and operations planning?	2014	International Journal of Operations and Production Management
Kjellsdotter Ivert, L.K.; Dukovska-Popovska, I.; Kaipia, R.; Fredriksson, A.; Dreyer, H.C.; Johansson, M.I.; Chabada, L.; Damgaard, C.M.; Tuomikangas, N.	Sales and operations planning: responding to the needs of industrial food producers	2015	Production Planning and Control
Nemati, Y.; Madhoshi, V.; Ghadikolaei A.S.	The effect of Sales and Operations Planning (S&OP) on supply chain's total performance: A case study in an Iranian dairy company	2017	Computers and Chemical Engineering
Ambrose S. C., Lucy M. Matthews, Brian N. Rutherford	Cross-functional teams and social identity theory: A study of sales and operations planning (S&OP)	2018	Journal of Business Research
Seeling, M.X.; Panitz, C.E.; Cassel, R.A.	Sales and operations planning: learnings from 15 Brazilian companies	2021	Brazilian Journal of Operations & Production Management
Seeling, M.X.; Kreuter, T.; Scavarda, L.F.; Thomé, A.M.T; Hellingrath, B.	Global sales and operations planning: A multinational manufacturing company perspective	2021	PLOS ONE

Author(s)	Title	Year	Source title
Neto, R.; J. Barcellos, P.F.P.	Challenges of implementing S&OP in a mid-sized automotive components company: An action research approach	2022	Systemic Practice and Action Research
Kalla, C.; Scavarda, L.F.; Caiado, R.G.G.; Hellingrath, B.	Adapting sales and operations planning to dynamic and complex supply chains	2025	Review of Managerial Science
Mysłowska-Płaszewska, A.; Dudek, M.	Implementing IBP/S&OP processes – the main mistakes using the example of a global company	2025	Scientific Papers of Silesian University of Technology, Organization and Management Series
Roscoe, S.; Subramanian, N.; Prifti, R.; Wu, L.	Stakeholder engagement in a sustainable sales and operations planning process	2020	Business Strategy and the Environment

Table 2. The articles selected for SLR

2.2. Citation and co-citation analysis

2.2.1. Citation analysis

To assess the academic influence of publications within the S&OP literature, a citation count analysis was conducted. Citation count is a fundamental bibliometric technique that evaluates the impact of a publication based on the number of times it has been cited in subsequent research (Garfield, 1979). It is widely used as a proxy for scholarly influence and knowledge diffusion within a field (Bornmann and Daniel, 2008).

Citation data were extracted from the Scopus database, and the total number of citations ("cited by") was recorded for each article in the sample. The analysis focused on identifying highly cited publications and examining the distribution of citations across the dataset to reveal influential works and dominant research contributions.

Although citation counts provide a useful indicator of academic impact, they may be biased toward older publications and do not reflect the context or quality of citations. Nevertheless, citation analysis remains an appropriate method for identifying key contributions and understanding the development of a research field.

2.2.2. Co-citation analysis

To explore the intellectual structure of the S&OP research field, a co-citation analysis was conducted using VOSviewer. Co-citation analysis is a bibliometric technique that identifies relationships between publications based on how frequently they are cited together in subsequent studies, thereby revealing the underlying knowledge structure of a research field (Small, 1973). This method is widely used to map scientific domains and detect clusters of related research (Boyack and Klavans, 2010).

The analysis was performed using cited references as the unit of analysis, as this enables the identification of foundational works that have shaped the development of the field. Bibliographic data were extracted from the Scopus database and imported into VOSviewer, a software tool specifically designed for constructing and visualizing bibliometric networks (Van Eck and Waltman, 2010). A minimum citation threshold was applied to include only frequently cited references, ensuring the robustness and interpretability of the network.

The full counting method was used to construct the co-citation network, assigning equal weight to each co-citation link. VOSviewer's mapping and clustering techniques, based on association strength normalization, were then applied to visualize the network and group related references into clusters (Van Eck and Waltman, 2010). These clusters represent distinct research streams within the S&OP literature.

The resulting co-citation map was analyzed to identify dominant themes, influential publications, and the overall intellectual structure of the field. This approach complements the systematic literature review by providing a quantitative, network-based perspective on how knowledge in S&OP has evolved over time.

Chapter 3. Results

3.1. Descriptive analysis

To begin with, there was conducted distribution diagram for chosen papers, Figure 2.

The diagram illustrates the distribution of published papers from 2008 to 2025. There is a clear upward trend in the number of publications, as indicated by the increasing trend line. A notable spike occurs in 2014, where publications increase significantly, followed by a temporary decline in 2015.

From 2016 onwards, the number of studies stabilizes at a moderate level, generally ranging between four and five publications annually. This suggests a period of consistent research interest in the topic. The most significant increase appears in 2025, where the number of publications rises sharply, reaching its highest point. It can be suggested the presence of growing attention and expanding research activity in the field.

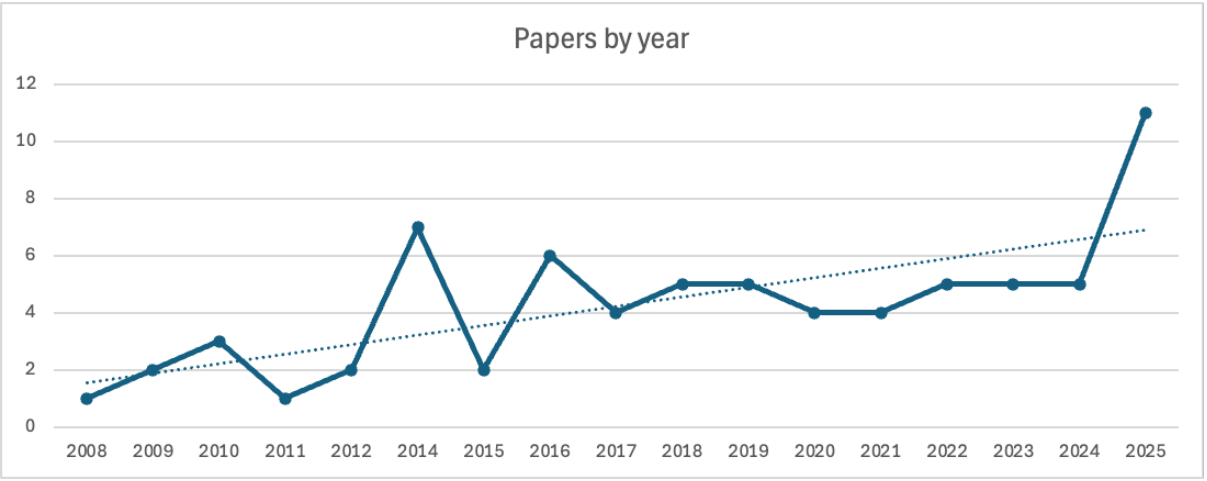


Figure 2. Papers distribution per years

All 69 articles and reviews were published in 43 journals. 33 out of 43 resources were represented by only one paper, the top 10 of represented journals is demonstrated in Figure 3.

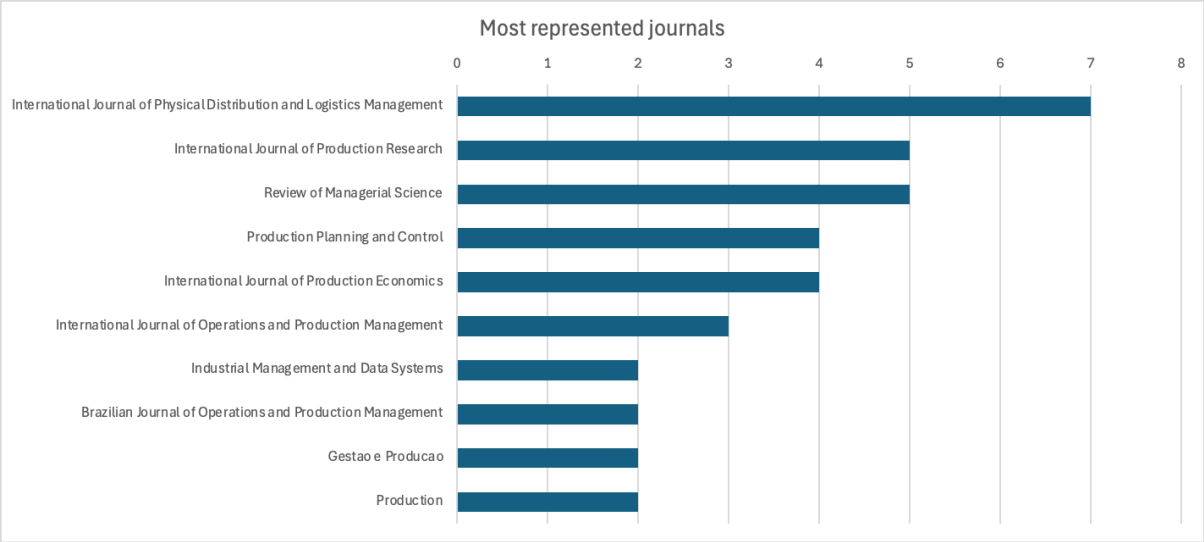


Figure 3. Papers distributions by journals

The distribution of articles across journals indicates a strong concentration of S&OP research within a limited number of core operations and supply chain management journals. The International Journal of Physical Distribution and Logistics Management is the most represented outlet, with 7 publications, followed by the International Journal of Production Research and the Review of Managerial Science (5 articles per each).

This distribution suggests that S&OP research is primarily anchored in established operations management and supply chain journals, reflecting the field's strong theoretical and methodological foundations in these disciplines. At the same time, the presence of multiple journals with smaller contributions indicates a degree of fragmentation and interdisciplinary dispersion, with research also appearing in related domains such as industrial engineering and management.

To assess the quality and impact of the publication outlets, journal ratings were obtained using the SCImago Journal & Country Rank (SJR) database. SCImago provides journal rankings based on citation data from the Scopus database, classifying journals into quartiles (Q1–Q4) according to their relative performance within specific subject areas. Distribution between the quartiles is demonstrated in Figure 4 (a, b) below.

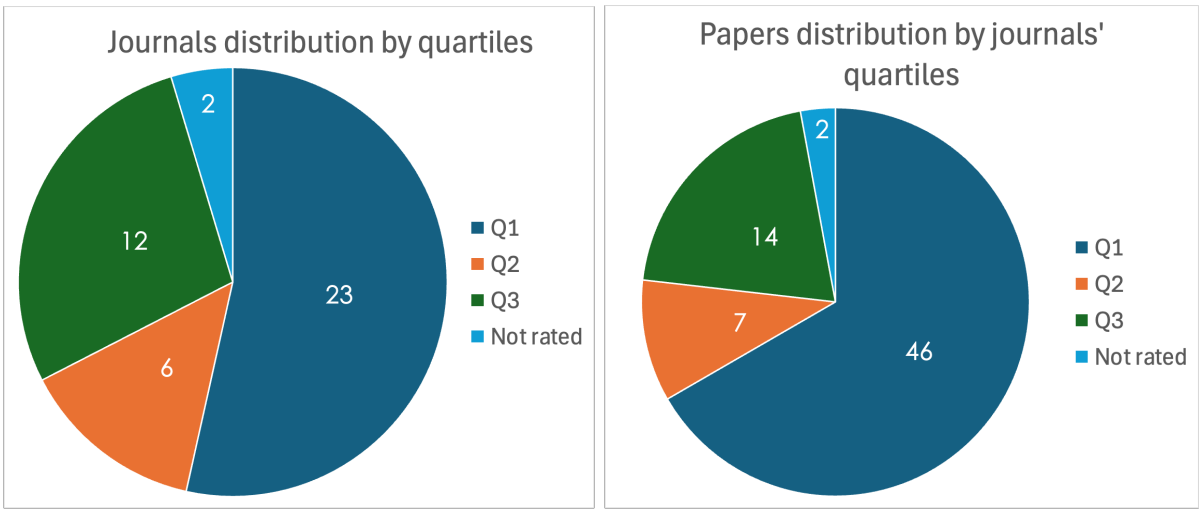


Figure 4 (a, b). Distribution of journals (a) and articles (b) by quarters based on SCImago Journal & Country Rank

The analysis of journal quality based on quartile rankings reveals a strong concentration of S&OP research in high-impact academic outlets. The first thing to be mentioned is the absence of journals from Q4 among the data. In terms of journal distribution, the majority of journals belong to the top quartile (Q1), accounting for 23 journals, followed by Q3 (12 journals) and Q2 (6 journals), with only a minimal presence of non-rated journals. This indicates that the field is primarily anchored in well-established and reputable publication outlets.

A similar pattern is observed when analysing the distribution of papers across journal quartiles. The majority of articles (46) are published in Q1 journals, significantly outweighing those in Q2 (7 articles) and Q3 (14 articles), while only couple articles appears in non-rated outlets. This reinforces the dominance of top-tier journals in disseminating S&OP research.

When it comes to the authors of the articles, a total of 163 unique author names were found. Out of those only 36 authors were represented with two or more publications. As presented in Figure 5, Scavarda, Luiz Felipe appears as the most prolific author, with 10 publications, followed by Tavares Thomé, Antonio Márcio with 7 articles. Seeling, Marcelo Xavier and Hellingrath, Bernd each contribute 5 publications, while Kjellsdotter Ivert, Linea and Kaipia, Riikka have 4 publications each. Several other authors, including Dreyer, Goh, Kreuter, Eldridge, Dukovska-Popovska, and Jonsson, each appear in 3 publications.

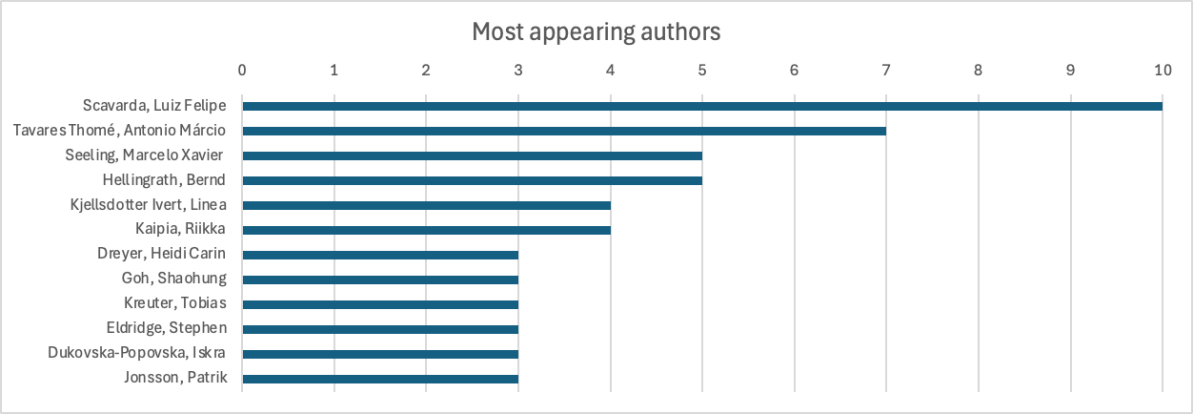


Figure 5. Frequency of authors' representation in the sample

To assess the academic influence of publications within the Sales and Operations Planning literature, a citation count analysis was conducted. The dataset was compiled from the Scopus database. Citation data were collected at a single point in time to ensure consistency across the dataset. The analysis focused on comparing citation counts across publications in order to identify highly influential studies and to assess the distribution of citations within the sample.

As can be seen from Figure 6, most part of the articles (26 jut of 69) are cited infrequently. Besides, tt can also be noted that the sample contains five articles with more than 80 citations. To summarize, it can be stated that the collected set is represented by various types of publications from highly influential articles to recently published works and modest-level research.

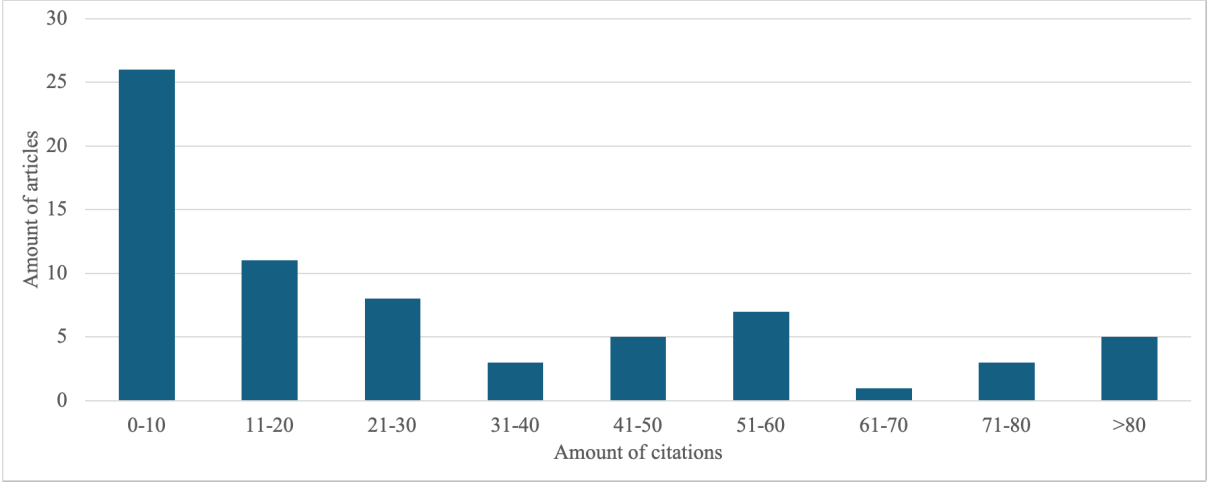


Figure 6. Distribution of articles by amount of citations

The results of the citation analysis reveal a concentration of citations around a limited number of papers, indicating their foundational role in structuring the field. In contrast, more

recent studies tend to be less cited but contribute to emerging research streams such as digitalization, behavioral aspects, and integration with advanced analytics.

The citation count analysis reveals a highly skewed distribution of citations within the S&OP literature, indicating a clear core-periphery structure. A small number of publications account for a disproportionately large share of total citations, forming the intellectual foundation of the field. Notably, highly cited studies such as Oliva and Watson (2011), Tavares Thomé et al. (2012), and Tuomikangas and Kaipia (2014) dominate the citation landscape, reflecting their central role in shaping S&OP research. Top of the most citated papers is presented in the Table 3 below.

Authors	Title of paper	Cited by
Oliva, R.; Watson, N.	Cross-functional alignment in supply chain planning: A case study of sales and operations planning	246
Tavares Thomé, A.M.T.; Scavarda, L.F.; Fernandez, N.S.; Scavarda, A.J.	Sales and operations planning: A research synthesis	198
Tuomikangas, N.; Kaipia, R.	A coordination framework for sales and operations planning (S&OP): Synthesis from the literature	130
Choudhury, A.; Behl, A.; Sheorey, P.A.; Pal, A.	Digital supply chain to unlock new agility: a TISM approach	122
Oliva, R.; Watson, N.	Managing functional biases in organizational forecasts: A case study of consensus forecasting in supply chain planning	88
Wagner, S.M.; Ullrich, K.K.R.; Transchel, S.	The game plan for aligning the organization	80
Kjellsdotter Ivert, L.K.; Jonsson, P.	The potential benefitsof advanced planning and scheduling systems in sales and operations planning	75
Kristensen, J.; Jonsson, P.	Context-based sales and operations planning (S&OP) research: A literature review and future agenda	72
Chen, F.; Lai, G.; Xiao, W.	Provision of incentives for information acquisition: Forecast-based contracts vs. menus of linear contracts	70
Tavares Thomé, A.M.T.; Scavarda, L.F.; Fernandez, N.S.; Scavarda, A.J.	Sales and operations planning and the firm performance	67

Table 3. The most citated articles and reviews

The analysis of the overlap between research questions was conducted to reveal key patterns in the S&OP literature, the results are presented in the Table 4 below.

	Conflict	Consensus	Mechanisms	Empirical evidence	Gaps
Conflict	21	15	21	11	13
Consensus	15	32	32	14	11
Mechanisms	21	32	59	23	23
Empirical evidence	11	14	23	31	25
Gaps	13	11	23	15	33

Table 4. Overlap in research questions (amount of articles counted)

First, the highest number of articles is associated with RQ3 (mechanisms), indicating that the literature places strong emphasis on understanding the processes and organizational factors linking S&OP practices to performance. In contrast, fewer studies focus exclusively on conflict (RQ1) and consensus (RQ2), suggesting that these constructs are less frequently examined as standalone topics.

Second, there is a substantial overlap between consensus and mechanisms, as well as between mechanisms and empirical evidence, highlighting that consensus is often studied in relation to coordination processes and that mechanisms are frequently linked to performance outcomes. Similarly, the overlap between conflict and mechanisms suggests that conflict is primarily examined within broader process-oriented discussions rather than as an independent phenomenon.

However, the relatively lower overlap between conflict and empirical evidence indicates a lack of strong empirical validation of conflict-related effects. Additionally, gaps are moderately connected to all categories, with the highest linkage to mechanisms, suggesting that future research directions are often framed around improving process understanding rather than addressing behavioral dimensions directly.

The findings indicate that while mechanisms serve as the central integrative theme in the S&OP literature, behavioral constructs such as conflict and consensus remain underdeveloped and insufficiently supported by empirical evidence. This highlights a clear opportunity for future research to more explicitly integrate behavioral perspectives with performance outcomes through rigorous empirical investigation.

To analyze the methodological orientation of the selected studies, the articles were classified into four categories: modeling/theoretical, qualitative, experimental/quantitative, and review/analytical. This classification is consistent with established distinctions in research methodology literature between conceptual/model-based research, qualitative inquiry,

quantitative empirical studies, and literature-based analyses (Creswell, 2014; Meredith, 1998). The modeling/theoretical category includes studies that develop optimization models, simulations, or conceptual frameworks to support S&OP decision-making. Qualitative studies comprise case studies, interviews, and observational research aimed at understanding organizational processes and behaviors in context. The experimental/quantitative category includes survey-based research and statistical analyses used to test relationships between variables. Finally, the review/analytical category encompasses systematic literature reviews and research syntheses that structure existing knowledge and identify research gaps (Tranfield et al., 2003).

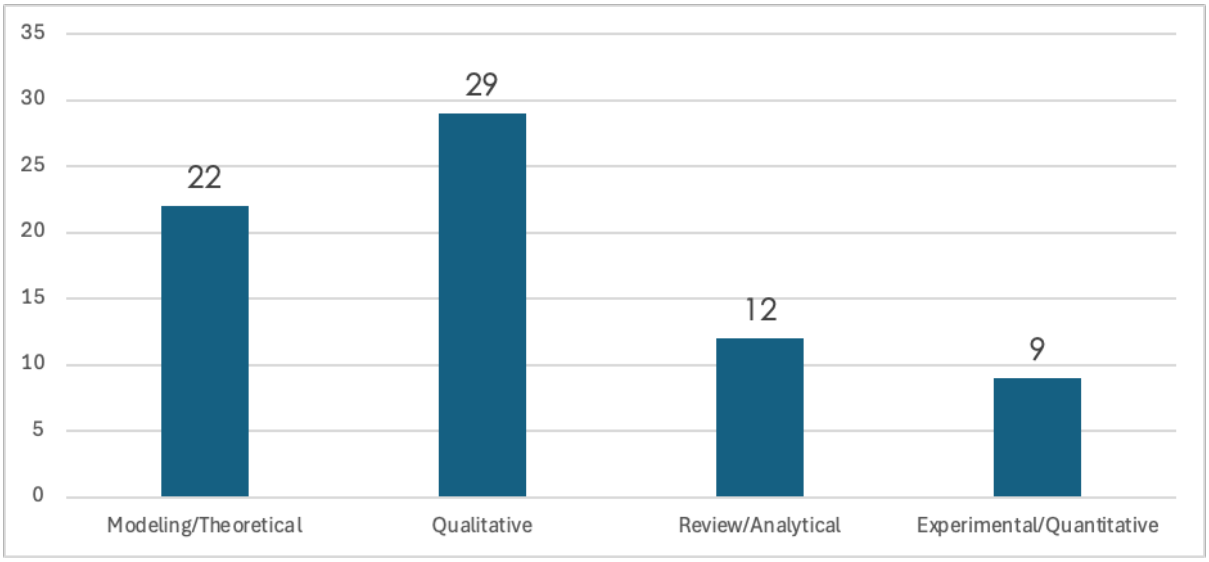


Figure 7. Distribution of articles by amount of citations

The distribution of research methods within the selected S&OP literature reveals a clear dominance of qualitative approaches, which account for 29 studies. Modeling and theoretical studies represent the second largest category, with 22 articles, indicating a strong emphasis on conceptual development and optimization-based research. Review and analytical studies are less prevalent, comprising 12 publications, while experimental and quantitative research is the least represented category, with only 9 studies.

These results suggest that the S&OP field is primarily driven by qualitative insights and theoretical modeling, with comparatively limited use of rigorous quantitative methods. In particular, the relatively low number of experimental and survey-based studies highlights a lack of empirical validation, especially in relation to behavioral and organizational aspects of S&OP. This imbalance underscores an important opportunity for future research to strengthen the empirical foundation of the field through more quantitative investigations.

To examine the intellectual structure of the data, a co-citation analysis was conducted using VOSviewer. Bibliographic data were extracted from the Scopus database in CSV format. A minimum threshold of two citations was applied to include only relevant and sufficiently connected publications. The co-citation network was then visualized using VOSviewer's mapping and clustering algorithms and presented in Figure 8 and Figure 9.

Figure 8. Network visualization (minimum level-2)

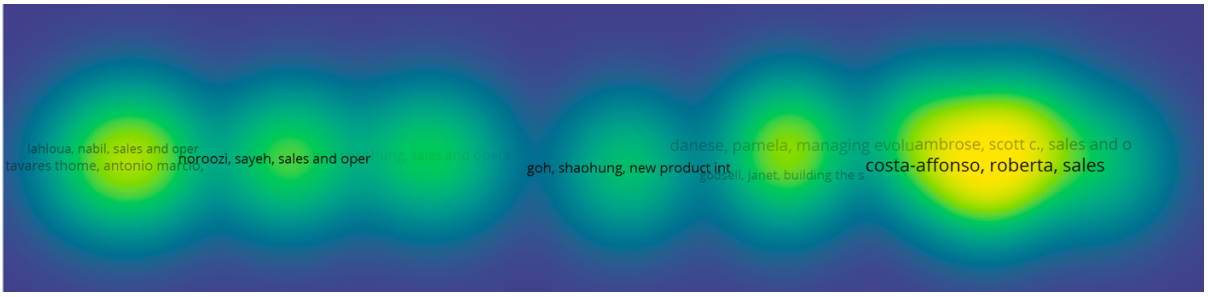


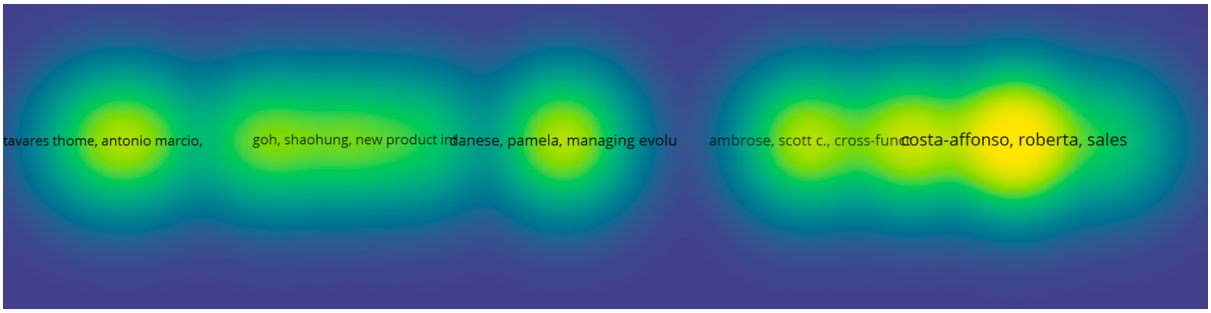
Figure 9. Density visualization (minimum level-2)

The co-citation network visualization reveals a structured but relatively concentrated intellectual landscape within the S&OP literature. Three main clusters can be identified, each representing a distinct stream of research. The red cluster appears to be centered around foundational and conceptual contributions, including early S&OP frameworks and literature reviews, indicating their role as the theoretical backbone of the field. The green cluster is associated with more applied and integration-focused studies, particularly those addressing supply chain alignment and coordination, with Costa-Affonso emerging as a key connecting author within this stream. The blue cluster occupies an intermediate position, linking conceptual and applied research, and includes studies related to product introduction and coordination mechanisms.

To ensure the robustness and interpretability of the co-citation analysis, different citation thresholds were tested. While a minimum threshold of two citations produced a denser network with a larger number of included publications, it also introduced weaker links and reduced the clarity of cluster structures. Therefore, a threshold of three citations was selected for the final analysis, as it provided a more concise and interpretable visualization of the core intellectual

structure of the S&OP literature. The resulting network highlights the most influential and strongly connected studies, allowing for a clearer identification of key research streams. Nevertheless, the consistency of patterns observed at lower thresholds supports the stability of the findings.

Figure 10. Network visualization (minimum level-3)



F*igure 11. Density visualization (minimum level-3)*

The connections between clusters suggest that while these research streams are distinct, they are not isolated, as several bridging authors contribute to the integration of ideas across domains. However, the relatively limited density of the network and the small number of strongly connected nodes indicate that the field is not highly fragmented but rather built around a core set of influential studies. This also suggests that certain topics, particularly behavioral aspects such as conflict and consensus, are not yet deeply embedded in the central intellectual structure of the S&OP literature, reinforcing the presence of research gaps in these areas.

3.2. Thematic analysis

3.2.1. Types of conflict in S&OP

The literature conceptualizes conflict as an inherent and often unavoidable feature of cross-functional decision-making processes. Several types of conflict are identified.

Firstly, functional conflict arises between departments such as sales, operations, and finance due to differing goals, incentives, and performance metrics, often manifesting in disagreements over demand forecasts, production plans, or inventory levels.

Secondly, studies distinguish between cognitive (task-related) conflict and affective (relationship-based) conflict, where the former can be constructive by encouraging information exchange and critical evaluation, while the latter tends to hinder collaboration and decision quality.

Thirdly, goal and incentive misalignment is frequently highlighted as a source of conflict, particularly when functions are evaluated based on conflicting KPIs, leading to biased forecasts or opportunistic behavior.

Additionally, information-related conflicts, such as discrepancies in data interpretation or lack of transparency, are common in S&OP processes. In practice, these conflicts manifest during key S&OP meetings and planning cycles, where stakeholders negotiate plans and reconcile divergent perspectives. In contrast, affective conflict is rarely addressed, appearing in only a small number of studies.

3.2.2. Forms of consensus

Consensus in Sales and Operations Planning is conceptualized in the literature as a multidimensional construct achieved through several distinct but interrelated forms.

The most mentioned form is collaborative (or cross-functional) consensus, which emphasizes cross-functional alignment through structured meetings and joint decision-making processes involving sales, operations, and finance.

In parallel, a significant stream of research highlights data-driven consensus, where analytical models, forecasting tools, and decision-support systems are used to support agreement and reduce uncertainty.

Negotiated consensus is also frequently observed, reflecting the iterative nature of S&OP meetings in which stakeholders engage in compromise and reconcile conflicting perspectives.

In addition, a growing body of literature points to behavioral or relational consensus, focusing on trust, social dynamics, and coordination mechanisms that facilitate alignment beyond formal processes.

Finally, hierarchical consensus captures situations where agreement is achieved through managerial authority or executive intervention, although this form is less explicitly emphasized.

3.2.3. Mechanisms linking conflict and consensus to performance

The literature identifies a set of interrelated mechanisms through which conflict and consensus in S&OP processes influence firm performance, broadly categorized into behavioral, processual, organizational, and analytical dimensions.

Behavioral mechanisms refer to the interpersonal and social dynamics that shape how conflict is expressed and managed. Trust, communication quality, leadership, and social identity play a critical role in determining whether conflict becomes constructive or dysfunctional. For example, Ambrose et al. (2018) demonstrate that strong cross-functional team identity reduces adversarial behavior and facilitates consensus, while Stentoft et al. (2020) show that individual personality traits influence openness to discussion and willingness to compromise. Similarly, Goh and Eldridge (2019, 2024) highlight how coordination mechanisms mediate the relationship between S&OP culture and supply chain performance by fostering collaborative behaviors.

Processual mechanisms are embedded in the design and execution of the S&OP process itself. These include structured meeting routines, standardized planning steps, iterative reconciliation cycles, and formal information-sharing practices. Such mechanisms provide a platform for transforming conflict into negotiated consensus. Tuomikangas and Kaipia (2014) propose a coordination framework in which clearly defined process stages enable alignment across functions. Danese et al. (2018) show that the maturity of the S&OP process, characterized by formalization and integration. enhances the organization's ability to resolve conflicts effectively. Dreyer et al. (2018) and Seeling et al. (2022) further illustrate how iterative planning and financial integration support continuous adjustment and alignment, ultimately improving decision quality.

Organizational mechanisms relate to structural and institutional factors such as governance structures, incentive systems, role clarity, and power distribution. These mechanisms shape the underlying conditions under which conflict arises and is resolved. Oliva and Watson (2009, 2011) demonstrate that misaligned incentives lead to functional biases in forecasting, which distort consensus and reduce performance, while Godsell et al. (2010)

emphasize that strategic alignment across organizational units is essential for coherent decision-making. Wagner et al. (2014) and Nyman et al. (2025) further highlight the importance of leadership and governance in coordinating cross-functional priorities and ensuring that consensus reflects organizational objectives rather than local interests.

Finally, analytical (or technological) mechanisms involve the use of quantitative models, forecasting systems, and decision-support tools to provide an objective basis for decision-making. These mechanisms reduce ambiguity and limit subjective disagreement by grounding discussions in shared data and formal analysis. For instance, Abay et al. (2024) and Aiassi et al. (2020) demonstrate how simulation-based optimization models support multi-objective decision-making under uncertainty, while Feng et al. (2010) show that integrated planning models improve both alignment and performance outcomes. Hulthén et al. (2016) also highlight the role of performance measurement systems in enabling fact-based consensus.

3.2.4. Empirical evidence

The empirical evidence in the S&OP literature is characterized by a combination of qualitative case studies, quantitative survey-based analyses, simulation-based experiments, and analytical performance assessments, each providing different levels of insight into the relationship between conflict, consensus, and performance. Qualitative case study evidence, which dominates the field, offers detailed observations of performance improvements following enhanced alignment. For instance, Oliva and Watson (2009, 2011) report significant reductions in forecast bias and improvements in forecast accuracy after implementing consensus-based forecasting processes, while Pedroso et al. (2016) and Seeling et al. (2022) show that improved cross-functional integration and financial alignment lead to measurable gains in planning reliability and decision quality, including reductions in planning errors and improved service levels.

Quantitative survey-based studies provide more generalizable evidence of performance impacts. Goh and Eldridge (2019, 2024) find statistically significant positive relationships between coordination mechanisms and supply chain performance, with improvements observed in delivery reliability and responsiveness. Similarly, Stentoft et al. (2022) demonstrate that higher levels of behavioral alignment and process efficiency are associated with improved operational performance, including enhanced planning effectiveness and reduced inefficiencies.

Simulation-based studies offer controlled evidence of performance improvements under different S&OP configurations. Feng et al. (2010) report that fully integrated S&OP systems can improve overall planning performance in terms of cost efficiency and service level indicators compared to partially integrated systems. Abay et al. (2024) and Aiassi et al. (2020) further demonstrate that simulation-based optimization models lead to improvements in demand satisfaction, cost reduction, and resource utilization under uncertainty, often achieving measurable gains in multi-objective performance metrics.

Finally, analytical and performance measurement studies provide structured evaluations of S&OP effectiveness. Hulthén et al. (2016) highlight how performance measurement frameworks enable tracking of improvements in forecast accuracy and planning stability, while Tavares Thomé et al. (2012) synthesize empirical findings showing that firms adopting mature S&OP practices experience improvements in both operational and financial performance indicators. Across these different forms of evidence, the literature consistently indicates that effective consensus-building mechanisms lead to improved forecast accuracy, service levels, and cost performance, while unmanaged or biased conflict negatively affects planning outcomes. However, despite these findings, the literature rarely quantifies the direct impact of specific conflict types on performance, and only limited evidence exists on the full causal chain linking conflict, consensus quality, and firm performance, highlighting an important gap for future research.

3.2.5. Cross-theme synthesis

The cross-theme analysis reveals that conflict and consensus in S&OP are not independent constructs but are dynamically interrelated through a set of mediating mechanisms that ultimately shape performance outcomes. The findings indicate that different types of conflict, particularly cognitive and functional conflict, can contribute positively to decision-making when effectively managed, while affective and goal-based conflicts tend to undermine alignment. The transformation of conflict into high-quality consensus is enabled by behavioral, processual, organizational, and analytical mechanisms, which together determine whether disagreement leads to improved decisions or dysfunctional outcomes.

The empirical evidence suggests that high-quality cross-functional consensus is consistently associated with improved operational, financial, and supply chain performance, particularly when supported by strong coordination mechanisms and structured processes. However, the analysis also highlights that the literature largely treats conflict and consensus

separately and rarely examines their joint impact on performance as part of an integrated causal chain. As a result, important interactions, such as how specific conflict types influence particular forms of consensus under different organizational conditions, remain insufficiently explored. This suggests the need for a more holistic perspective that integrates behavioral, processual, and structural dimensions of S&OP into a unified framework.

Conflict	Consensus	Mechanisms	Articles where mentioned
Cognitive	Collaborative or negotiated	Processual, organizational	Danese et al. (2018) Tuomikangas and Kaipia (2014) Pedroso et al. (2016)
Goal / incentive	Negotiated (iterative)	Organizational	Oliva and Watson (2009, 2011) Godsell et al. (2010) Wagner et al. (2014)
Information	Data-driven (analytical), negotiated	Analytical (or technological), processual	Feng et al. (2010) Aiassi et al. (2020) Cassettari et al. (2017)
Functional (task)	Collaborative or negotiated	Organizational or behavioral	Oliva and Watson (2011) Pedroso et al. (2016) Seeling et al. (2022)
Affective	Behavioral, collaborative	Behavioral, processual or organizational	Ambrose et al. (2018) Stentoft et al. (2020)

Table 5. Examples of conflict-consensus-mechanism relationships

The Table 5 presents illustrative examples of how the reviewed literature integrates different dimensions of the research questions into coherent analytical frameworks. Specifically, it demonstrates how particular types of conflict are linked to corresponding forms of consensus and are mediated through distinct mechanisms. By mapping these relationships across selected studies, the table highlights that the literature does not treat conflict, consensus, and mechanisms as isolated constructs, but rather as interdependent elements within the S&OP process. These examples provide empirical and conceptual evidence of how multiple RQs (particularly Q1, Q2, and Q3) are jointly addressed within individual papers, thereby supporting a more integrated understanding of how conflict and consensus interact and influence decision-making and performance in S&OP.

Chapter 4. Conclusion

4.1. Summary of the research

The main objective of this study was to address the fragmented and predominantly theoretical nature of the academic literature concerning conflict and consensus within the sales and operations planning process. Despite the growing importance of S&OP as a cross-functional and strategic planning mechanism, existing research remains dispersed across different disciplines and often treats behavioral, processual, and performance-related aspects in isolation. To provide a structured and integrated understanding of this topic, this study aimed to answer the following research questions:

RQ1: What types of conflict are conceptualized and described in the literature, and how do they manifest in the context of S&OP?

RQ2: What forms of consensus are conceptualized and described in the literature, and how are they achieved and characterized in the context of S&OP?

RQ3: Through which behavioral, processual, and organizational mechanisms do conflict and consensus in S&OP influence the operational, financial, and supply chain performance of the firm?

RQ4: What empirical evidence exists regarding the relationship between the type/level of conflict, the quality of consensus in S&OP, and various dimensions of firm performance?

RQ5: What are the key gaps in the S&OP literature concerning conflict and consensus, and what directions for future research do they suggest?

To address these questions, a systematic literature review (SLR) was conducted. The research process involved a structured database search using Scopus, followed by a multi-stage screening procedure that reduced the initial pool of publications to a final corpus of 69 articles for in-depth analysis.

In addition, co-citation analyse was employed to assess the intellectual structure of the field. Co-citation analysis, conducted using VOSviewer, enabled the identification of clusters of frequently co-cited studies, revealing underlying research streams and conceptual linkages within the S&OP literature.

The selected studies were systematically analyzed using descriptive, citation, and thematic approaches in order to identify patterns, relationships, and gaps in the literature. Together, these methods provided insights into both the impact and the structural organization of the research domain.

4.2. Key findings

The thematic analysis of the selected literature helped to provide clear answers to the stated research questions.

Addressing RQ1, the study identified several recurring types of conflict embedded within the S&OP process. The literature shows a strong emphasis on cognitive and functional conflicts, which arise from differences in forecasts, assumptions, and functional priorities across departments. These forms of conflict are often described as constructive when managed effectively. In contrast, affective and incentive-based conflicts, although less frequently examined, are associated with misaligned goals, political behavior, and interpersonal tensions that negatively impact collaboration. Information-related conflicts were also identified, particularly in data inconsistencies and forecasting discrepancies.

In response to RQ2, the findings reveal that consensus in S&OP is conceptualized in multiple forms rather than as a single outcome. The most frequently described forms include collaborative consensus, achieved through cross-functional dialogue; negotiated consensus, emerging from trade-off discussions; and data-driven consensus, supported by analytical tools and shared metrics. The literature highlights that high-quality consensus is characterized by both agreement and commitment, while superficial consensus often leads to poor execution. The achievement of consensus is strongly dependent on structured processes, transparency of information, and alignment of incentives.

Regarding RQ3, the study identifies four main categories of mechanisms through which conflict and consensus influence performance: behavioral, processual, organizational, and analytical (or technological). Behavioral mechanisms such as trust, communication, and shared understanding enable constructive conflict and facilitate consensus formation. Processual mechanisms, including formal S&OP routines, structured meetings, and KPI alignment, provide the necessary discipline for managing trade-offs. Organizational mechanisms, such as governance structures and executive involvement, ensure alignment across functions. Analytical mechanisms, such as forecasting systems, optimization models, and data integration

tools, support evidence-based decision-making and enhance the quality and objectivity of consensus formation. Together, these mechanisms determine whether conflict leads to improved decision-making or dysfunctional outcomes.

With respect to RQ4, the empirical evidence indicates that effective S&OP implementation, particularly when supported by high-quality consensus, is associated with improvements in operational, financial, and supply chain performance. These include enhanced forecast accuracy, reduced inventory levels, improved service levels, and better financial alignment. However, the review also reveals that quantitative empirical studies remain relatively limited, with much of the evidence derived from case-based and qualitative research.

Finally, in relation to RQ5, the analysis highlights several key gaps in the literature. First, there is a lack of integrated frameworks that jointly examine conflict, consensus, and performance. Second, empirical research remains underdeveloped, particularly in terms of large-scale quantitative studies. Third, behavioral and political dimensions of S&OP are still insufficiently explored. A recurring theme across the literature is the need for a more holistic and interdisciplinary approach, integrating analytical models with organizational and behavioral perspectives to better capture the complexity of S&OP processes.

4.3. Implications

The findings of this review contribute to theory by integrating behavioral, processual, organizational, and analytical perspectives, showing that conflict and consensus in S&OP are interdependent elements rather than separate constructs. It highlights that cognitive and functional conflicts can improve decision quality when properly managed, challenging the traditional view that conflict should be minimized.

From a managerial perspective, the findings suggest that effective S&OP requires not only analytical tools but also well-designed processes and strong cross-functional collaboration. Organizations should enable constructive conflict through structured discussions while ensuring high-quality consensus via clear governance, aligned KPIs, and executive support. Additionally, analytical systems and data integration tools play a key role in supporting evidence-based decisions, but their effectiveness depends on alignment with organizational and behavioral mechanisms.

4.4. Limitations

This study has several limitations that should be acknowledged. To start with, as a systematic literature review, the findings are dependent on the scope and selection of articles, which were limited to publications indexed in Scopus and may therefore exclude relevant studies from other databases or grey literature. Besides, the analysis relies largely on qualitative interpretation and synthesis of existing studies, which introduces a degree of subjectivity in the classification of conflict types, consensus forms, and mechanisms. Third, the literature itself is characterized by a limited number of quantitative and large-scale empirical studies, which restricts the ability to draw strong causal conclusions about the relationships between conflict, consensus, and performance. Finally, the heterogeneity of industries, contexts, and methodological approaches across the reviewed articles may limit the generalizability of the findings. These limitations suggest the need for more rigorous empirical research and broader data sources in future studies.

4.5. Further research

The reviewed literature highlights several important directions for future research.

There is a clear need for more empirical and quantitative studies to validate the relationships between conflict, consensus, and performance identified in conceptual and qualitative works. While studies such as those by Goh and Eldridge and Tavares Thomé et al. provide initial evidence, the field would benefit from large-scale, multi-industry analyses and longitudinal designs that capture the dynamic nature of S&OP processes over time. Future research should also focus on developing integrated frameworks that explicitly link different types of conflict, forms of consensus, and underlying mechanisms, as most existing studies examine these elements in isolation rather than as part of a unified system.

Furthermore, the behavioral and social dimensions of S&OP remain underexplored. Articles such as Ambrose et al. and Stentoft et al. highlight the role of team dynamics, identity, and interpersonal factors, yet these aspects are rarely incorporated into formal models. Further research should investigate how power, incentives, and organizational culture shape conflict and consensus formation. In addition, the role of digitalization and advanced analytics, emphasized in more recent studies such as Choudhury and Kalla et al., opens new avenues for exploring how technological mechanisms influence decision-making quality and cross-functional alignment.

Another important direction concerns contextualization. Several studies, including Kjellsdotter Ivert et al. and Noroozi and Wikner, suggest that S&OP effectiveness depends on industry characteristics, product complexity, and supply chain structure. Future research should therefore adopt contingency perspectives and compare S&OP practices across different environments. Finally, there is a need to better understand implementation challenges and failure mechanisms, as highlighted in recent practitioner-oriented and case-based studies. This includes examining barriers related to organizational resistance, lack of capabilities, and misalignment between processes and tools.

4.6. Concluding remarks

This study has consolidated current academic knowledge on the role of conflict and consensus within the S&OP process. By identifying key types of conflict, forms of consensus, underlying mechanisms, and their links to performance, it brings clarity to a fragmented and predominantly theoretical research area. The general conclusion is that while conflict is an inherent and unavoidable element of S&OP, it can contribute positively to decision quality when properly managed. At the same time, the effectiveness of S&OP depends on achieving high-quality consensus that ensures alignment and execution. However, this outcome is not guaranteed by formal processes or analytical tools alone. It depends strongly on the integration of behavioral, organizational, and technological mechanisms, as well as on the organization's ability to manage cross-functional dynamics.

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Appendix

Articles excluded during the 1st and 2nd screenings.

Authors	Paper title	Year	Source title	Exclusion reason
Abu Maria, E.A.; Maria, K.A.; Alia, M.A.	Smart agents in the business information system	2019	ICIC Express Letters	Focus on intelligent-agent technology rather than S&OP dynamics
Angolia, M.G.; Pagliari, L.R.	Experiential Learning for Logistics and Supply Chain Management Using an SAP ERP Software Simulation	2018	Decision Sciences Journal of Innovative Education	No S&OP relevance
Azadan, S.; Noori, S.; Teimoury, E.	Developed sales and operations planning (S&OP) with soft OR approach and organizational learning within pharmaceutical industry	2019	Chimica Oggi/Chemistry Today	No access to the full text
Caruso, D.	Emerging SCM directive: Think global	2004	MSI	No explicit S&OP focus
Chen, F.; Lai, G.; Xiao, W.	Provision of incentives for information acquisition: Forecast-based contracts vs. menus of linear contracts	2016	Management Science	No access to the full text
Chiappinelli, C.	Back to reality	2008	Managing Automation	No access to the full text
Darmawan, A.; Wong, H.; Thorstenson, A.	Integrated sales and operations planning with multiple products: Jointly optimizing the number and timing of promotions and production decisions	2020	Applied Mathematical Modelling	Technical, no conflict or consensus
Darmawan, A.; Wong, H.; Thorstenson, A.	Integration of promotion and production decisions in sales and operations planning	2018	International Journal of Production Research	Modelling only, no S&OP dynamics
de Biazzi, J.L.	Stochastic production planning with internal and external storage and ordering costs; Planejamento estocástico de produção com armazenagem interna e externa e custo de pedido	2021	Gestao e Producao	Production planning, not S&OP
de Freitas Almeida, J.F.F.; Conceição, S.V.; Pinto, L.R.; Oliveira, B.R.P.; Rodrigues, L.F.	Optimal sales and operations planning for integrated steel industries	2022	Annals of Operations Research	Optimization focus, no behavioral aspects

Authors	Paper title	Year	Source title	Exclusion reason
Doering, T.; Suresh, N.C.	Forecasting and Performance: Conceptualizing Forecasting Management Competence as a Higher-Order Construct	2016	Journal of Supply Chain Management	Forecasting focus, no S&OP context
Domingos, J.C.; Politano, P.R.; Pereira, N.A.	Systems dynamics model for the expanded S&OP process; Modelo de dinâmica de sistemas para o processo de S&OP ampliado	2015	Gestao e Producao	Original language is not English
Feng, Y.; Martel, A.; D'Amours, S.; Beauregard, R.	Coordinated contract decisions in a make-to-order manufacturing supply chain: A stochastic programming approach	2013	Production and Operations Management	Contracting focus, not S&OP
Fildes Prof., R.; Goodwin, P.; de Baets, S.	Forecast value added in demand planning	2025	International Journal of Forecasting	Forecasting focus, limited S&OP relevance
Gallego-García, S.; García-García, M.	Predictive sales and operations planning based on a statistical treatment of demand to increase efficiency: A supply chain simulation case study	2021	Applied Sciences (Switzerland)	Predictive analytics, not S&OP process
Giriraj, G.; Chinnaiyan, C.; Boopathi, M.; Ponnusamy, P.; Mannayee, V.	Design and analysis of secure data enhancement in a digital manufacturing system	2018	International Journal of Mechanical Engineering and Technology	Design approach, no S&OP context
Gligor, D.M.	The role of demand management in achieving supply chain agility	2014	Supply Chain Management	Demand management, not S&OP
Hahn, G.J.; Kuhn, H.	Optimising a value-based performance indicator in mid-term sales and operations planning	2011	Journal of the Operational Research Society	Optimization focus, no S&OP
Hajian, A.; Rezaeinejad, S.; Rayman, K.; Khorsandroo, S.	An innovative supply chain solution for information management in cyber resilience: Blockchain technology	2025	Journal of Innovation and Knowledge	Supply chain only, no S&OP
Islam, R.	Improving productivity and profitability of a bioanalytical business through sales and operation planning.	2013	Bioanalysis	No access to the full text
Jayabalan, J.; Dorasamy, M.; Raman, M.	Reshaping higher educational institutions through frugal open innovation	2021	Journal of Open Innovation: Technology, Market, and Complexity	Education context, irrelevant to S&OP

Authors	Paper title	Year	Source title	Exclusion reason
Kazmi, S.W.; Ahmed, W.	Understanding dynamic distribution capabilities to enhance supply chain performance: a dynamic capability view	2022	Benchmarking	General supply chain dynamics, not S&OP
Kim, C.-K.; Lee, C.; Kim, D.; Cha, H.; Cheong, T.	Enhancing Supply Chain Efficiency: A Two-Stage Model for Evaluating Multiple Sourcing and Extra Procurement Strategy Optimization	2023	Sustainability (Switzerland)	Supply chain focus, limited S&OP
Konings, M.J.; Foulsham, T.O.M.; Micklewright, D.; Hettinga, F.J.	Athlete-opponent interdependency alters pacing and information-seeking behavior	2020	Medicine and Science in Sports and Exercise	Healthcare context, no S&OP
Laurent Lim, L.; Alpan, G.; Penz, B.	Reconciling sales and operations management with distant suppliers in the automotive industry: A simulation approach	2014	International Journal of Production Economics	Coordination general, not S&OP-specific
Lemke, M.S.; Röh, C.; Schuler, L.; Studt, R.	Low-Code for Business Process Digitalization? Experimental Development of a Cross-Company App Prototype for Balancing Demand and Capacity by Citizen Developers; Low-Code für die Geschäftsprozess-Digitalisierung? Experimentelle Erstellung eines unternehmensübergreifenden App-Prototyps zum Bedarfs- und Kapazitätsabgleich durch Citizen Developer	2025	ZWF Zeitschrift fuer Wirtschaftliche n Fabrikbetrieb	Business process focus, no S&OP
Lim, L.L.; Alpan, G.; Penz, B.	A simulation-optimization approach for sales and operations planning in build-to-order industries with distant sourcing: Focus on the automotive industry	2017	Computers and Industrial Engineering	Optimization, no S&OP context
Lingkon, M.L.R.; Hossain, M.S.; Chakrabortty, R.K.	An analytics-driven hybrid method for multi-item demand forecasting in supply chains	2026	Supply Chain Analytics	Analytics focus, not S&OP
Moad, J.	Cost concerns trump spending in SCM	2009	Managing Automation	Cost discussion, not S&OP
Neil, S.	The S&OP sweet spot	2009	Managing Automation	Not rigorous research
Nemati, Y.; Alavidoost, M.H.	A fuzzy bi-objective MILP approach to integrate sales, production, distribution and procurement planning in a FMCG supply chain	2019	Soft Computing	Quantitative optimization model

Authors	Paper title	Year	Source title	Exclusion reason
Olhager, J.; Rudberg, M.	Linking manufacturing strategy decisions on process choice with manufacturing planning and control systems	2002	International Journal of Production Research	General manufacturing strategy
Olhager, J.; Rudberg, M.; Wikner, J.	Long-term capacity management: Linking the perspectives from manufacturing strategy and sales and operations planning	2001	International Journal of Production Economics	Capacity planning focus
Olhager, J.; Selldin, E.	Manufacturing planning and control approaches: market alignment and performance	2007	International Journal of Production Research	Performance link but not conflict/consensus
Paul, L.G.	Beating the ODDS in global supply	2007	Managing Automation	No analytical relevance to S&OP conflict/consensus
Pereira, D.F.; Oliveira, J.F.; Carravilla, M.A.	Design of a sales plan in a hybrid contractual and non-contractual context in a setting of limited capacity: A robust approach	2023	International Journal of Production Economics	Pure optimization
Pereira, D.F.; Oliveira, J.F.; Carravilla, M.A.	Merging make-to-stock/make-to-order decisions into sales and operations planning: A multi-objective approach	2022	Omega (United Kingdom)	MTS/MTO multi-objective approach, not relevant to conflict/consensus
Pereira, D.F.; Oliveira, J.F.; Carravilla, M.A.	Tactical sales and operations planning: A holistic framework and a literature review of decision-making models	2020	International Journal of Production Economics	Mostly modeling review
Rappold, J.A.; Yoho, K.D.	Setting safety stocks for stable rotation cycle schedules	2014	International Journal of Production Economics	Pure inventory model
Ross, A.	Creating agile supply chains	2003	Manufacturing Engineer	General SCM
Rota, I.S.; Souza, F.B.	A proposal for a theory of constraints-based framework in sales and operations planning	2021	Journal of Applied Research and Technology	Structural integration model
Sali, M.; Ghrab, Y.; Chatras, C.	Optimal product aggregation for sales and operations planning in mass customisation context	2023	International Journal of Production Economics	Optimal product aggregation
Samouche, H.; Elbarkany, A.; El Khalfi, A.	A model of sales and operations planning: Example of parameters used and decision-making process in a japanese industry	2020	International Journal of Engineering Research in Africa	No access to the full text
Sangode, P.B.	DEVELOPING A FRAMEWORK FOR THE INDIA	2024	Asia Pacific Journal of	General SCM risk

Authors	Paper title	Year	Source title	Exclusion reason
	PHARMACEUTICAL SUPPLY CHAIN - RISKS ASSESSMENT THROUGH A FMEA APPROACH		Health Management	
Scavarda, L.F.; Hellingrath, B.; Kreuter, T.; Tavares Thomé, A.M.T.; Seeling, M.; Fischer, J.-H.; Mello, R.	A case method for Sales and Operations Planning: A learning experience from Germany	2017	Production	Not relatable to the topic
Shaik, M.; Sridhar, S.; Sriskandaraja h, C.; Mittal, V.	Opportunity Management for Business-to-Business (B2B) Service Organizations: A Theory-Informed Decision Support Framework	2025	Production and Operations Management	General decision-support
Shimizu, Y.; Sakaguchi, T.; Yoo, J.-K.	A hybrid method for solving multi-depot VRP with simultaneous pickup and delivery incorporated with Weber basis saving heuristic	2016	Journal of Advanced Mechanical Design, Systems and Manufacturing	Completely unrelated
Slone, R.E.; Mentzer, J.T.; Paul Dittmann, J.	Are you the weakest link in your company's supply chain?	2007	Harvard Business Review	General SCM, not S&OP behavioral
Smith, F.	Plan with the big "S"	2004	MSI	Likely practitioner article, low academic relevance
Song, H.; Lai, G.; Xiao, W.	Optimal Salesforce Compensation with General Demand and Operational Considerations	2024	Manufacturing and Service Operations Management	Compensation modeling, not S&OP conflict
Stentoft, J.; Mikkelsen, O.S.; Vagn Freytag, P.V.; Rajkumar, C.	The relationship between behaviour, process efficiency, and performance in sales and operations planning	2022	Supply Chain Forum	No access to the full text (could be a core paper)
Stüve, D.; van der Meer, R.; Agha, M.S.; Lütke Entrup, M.	A systematic literature review of modelling approaches and implementation of enabling software for supply chain planning in the food industry	2022	Production and Manufacturing Research	Technology review, not conflict-focused
Takeute, M.	FUTURE OF MES AND RISE OF AI TOWARDS AUTONOMOUS MILLS	2023	O Papel	Technology article, not S&OP behavioral

Authors	Paper title	Year	Source title	Exclusion reason
Taskin, Z.C.; Aɬrali, S.; Ünal, A.T.; Belada, V.; Gökten-Yilmaz, F.	Mathematical programming-based sales and operations planning at Vestel Electronics	2015	Interfaces	Optimization case, no conflict/consensus dimension
Thomas, R.W.; Clifford Defee, C.; Randall, W.S.; Williams, B.	Assessing the managerial relevance of contemporary supply chain management research	2011	International Journal of Physical Distribution & Logistics Management	General SCM meta-discussion
Venkatesh, V.G..; Dubey, R.; Aital, P.	Analysis of sourcing process through SAP-LAP framework -A case study on apparel manufacturing company	2014	International Journal of Procurement Management	General SCM
Vike, C.	Weyerhaeuser's data management model gathers supply chain data	2007	Pulp and Paper	Practitioner case
Wang, J.-Z.; Hsieh, S.-T.; Hsu, P.-Y.	Advanced sales and operations planning framework in a company supply chain	2012	International Journal of Computer Integrated Manufacturing	Structural framework
Wery, J.; Gaudreault, J.; Thomas, A.; Marier, P.	Simulation-optimisation based framework for Sales and Operations Planning taking into account new products opportunities in a co-production context	2018	Computers in Industry	Pure optimization
Wibowo, B.S.	When and how to adjust statistical forecasts in supply chains? Insight from causal machine learning	2024	Journal of Business Analytics	Forecasting technique
Wochner, S.; Grunow, M.; Staeblein, T.; Stolletz, R.	Planning for ramp-ups and new product introductions in the automotive industry: Extending sales and operations planning	2016	International Journal of Production Economics	Structural planning extension
Wolfshorndl, D.A.; Vivaldini, M.; de Camargo, J.B.	Advanced Planning System as support for Sales and Operation Planning: study in a Brazilian automaker	2020	Global Journal of Flexible Systems Management	Technology support
Wood, L.C.; Reiners, T.; Srivastava, H.S.	Think exogenous to excel: alternative supply chain data to improve transparency and decisions	2017	International Journal of Logistics Research and Applications	General SCM data
Wood, T.; Bui, C.T.L.; Lubbock, C.; Wilson, J.; Jeffrey, S.; Lawrence, M.; Leung, C.;	Head-to-head competition does not affect pacing or performance in 1 km cycling time trials	2020	Journal of Sports Sciences	Completely unrelated

Authors	Paper title	Year	Source title	Exclusion reason
Mashar, D.; Sims, N.; Konings, M.J.; Hettinga, F.J.				
Yang, S.-J.S.; Huang, Y.; Eng, T.-Y.	Using Sector-Index Data to Model Demand Allocation for Capacity and Production Planning	2024	IEEE Transactions on Engineering Management	Optimization modeling
Yang, Y.; Wang, G.; Liu, C.; Lin, Y.; Jiao, C.; Chen, Q.; Zhuo, Z.; Mao, J.; Liu, Y.	Asymmetrically Coordinated Calcium Single Atom for High-Performance Oxygen Reduction Reaction	2024	Inorganic Chemistry	Completely unrelated