

# **Integrating Objectives and Key Results (OKRs) and Key Performance Indicators (KPIs) in Supply Chain Performance Management**

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## **Abstract**

Integrating Objectives and Key Results (OKRs) with Key Performance Indicators (KPIs) presents a promising yet underexplored approach for enhancing supply chain performance management. Traditionally, supply chains have used KPIs to measure and monitor operational efficiency through retrospective numerical indicators, such as delivery rates and inventory levels. However, relying only on KPIs may limit strategic agility, as these metrics primarily reflect past performance rather than inform future-oriented strategy. OKRs offer a complementary framework by setting ambitious, forward-looking objectives with measurable key results, often leveraging KPIs to track progress. Despite their synergy, integrating OKRs into KPI-driven environments remains challenging due to cultural resistance, confusion regarding overlapping roles, and the risk of "OKR overload." Recent conceptual insights advocate for structured integration in which KPIs provide diagnostic clarity for operational performance, while OKRs drive strategic change and promote alignment across organizational levels. Emerging practices highlight innovative applications, including the use of predictive analytics to support proactive decision-making and the extension of OKRs beyond internal boundaries to foster collaboration across entire supply networks. Real-world examples from industry leaders demonstrate significant performance improvements when OKRs and KPIs are thoughtfully combined, underscoring their potential to enhance organizational agility, resilience, and strategic coherence. This viewpoint article offers a novel perspective by proposing a cohesive framework in which KPIs ensure operational stability and OKRs facilitate continuous adaptation, enabling supply chains to remain competitive and responsive in an ever-changing environment.

## **Keywords**

Supply Chain Management (SCM), Key Performance Indicators (KPIs), Objective and Key Results (OKRs), Supply Chain Performance Management (SCPM)

## **1. Introduction**

Modern supply chains operate under conditions of high volatility, uncertainty, complexity, and ambiguity (VUCA), driven by globalization, technological disruption, shifting customer expectations, sustainability pressures, and the increasing frequency of shocks (Havale et al. 2024). Within this dynamic environment, effective supply chain management (SCM), particularly performance management, has become strategically imperative for maintaining competitive advantage (Susitha et al. 2024). Organizations have relied on quantifiable metrics, Key Performance Indicators (KPIs), to monitor and control supply chain operations (Anand & Grover 2015; Chae 2009). KPIs are crucial for diagnosing inefficiencies, benchmarking progress, and guiding continuous improvement across various supply chain functions (Chae 2009; Stefanovic, 2014). KPI-driven performance measurement systems provide essential visibility into operational health, help ensure that day-to-day processes meet established targets, and foster internal alignment (Bellisario et al. 2021). However, while KPIs are vital for monitoring operational efficiency and

stability, they predominantly offer retrospective insights by emphasizing historical performance and incremental improvements. An over-reliance on lagging indicators may limit an organization's strategic agility, as these KPIs typically reflect past performance rather than inform future-oriented strategy (Eckerson 2010; Mohammad 2023; Parmenter 2015). Consequently, firms risk becoming overly focused on optimizing existing metrics, potentially neglecting emerging external changes and innovation opportunities (Schrage et al. 2024; Stefanovic 2014). This risk is particularly significant in turbulent environments, where static metrics may inadequately capture emerging challenges and strategic priorities. Thus, organizations increasingly recognize that a purely backward-looking measurement system is insufficient for driving proactive, innovative improvements in a VUCA environment.

To complement KPIs and mitigate their inherent limitations, many leading companies have adopted the Objectives and Key Results (OKRs) framework. OKRs offer a more adaptive and goal-oriented approach, driving organizational focus and innovation (Doerr 2018; Zierock et al. 2024). The OKR framework consists of qualitative Objectives paired with a set of measurable Key Results (KRs), typically assessed over short cycles (Niven & Lamorte 2016; Vellore, 2022). OKRs aim to stretch the organizational capabilities, promote alignment across teams, and encourage employees to pursue ambitious outcomes beyond routine operations (Day & Holznienkemper 2025; Helmold 2022). Unlike KPIs, which primarily monitor ongoing process, OKRs explicitly target strategic change initiatives and ambitious, time-bound outcomes (Al Thinyan et al. 2022).

For instance, an objective such as "Improve supply chain responsiveness to market changes" includes KRs like "Reduce order fulfillment lead time by 20%" or "Achieve 95% forecast accuracy through predictive demand planning." These KRs typically leverage existing KPIs (e.g., lead time, forecast accuracy) but set more ambitious targets. By design, OKRs foster proactive management, helping teams anticipate and strive for future performance improvements rather than merely reporting past outcomes (Zierock et al. 2024). The methodology's emphasis on transparency, agility, and cross-functional collaboration has made OKRs a valuable tool for driving strategic initiatives in dynamic industries (Wulff et al. 2024). However, OKRs alone are not comprehensive performance systems; they require concrete KPIs to quantify progress. Without proper integration, OKR initiatives may falter or become isolated (Cunha et al. 2025; Fantozzi et al. 2024).

Given the distinct strengths and limitations of KPIs and OKRs, there is a growing recognition that these approaches can be synergistic rather than mutually exclusive (Al Thinyan et al. 2022; Cunha et al. 2025). KPIs provide stable monitoring of core operational performance, while OKRs introduce a strategic agenda by highlighting metrics that require significant improvements or identifying new capabilities that must be developed. Rather than treating OKRs and KPIs as competing frameworks, organizations increasingly use them in tandem (Cunha et al. 2025). Properly combined, OKRs and KPIs can promote cross-functional collaboration, reducing the risk of siloed behavior and misalignment inherent in isolated KPI management. This complementary relationship ensures that current supply chain operations remain efficient and controlled, while strategic initiatives advance through targeted improvements.

Despite the intuitive appeal of integrating OKRs with KPI-based performance management, this approach remains underexplored in both academic literature and practical application. Organizations frequently encounter challenges such as conceptual confusion between OKRs and KPIs, risk of "OKR overload," and cultural resistance toward ambitious, transparent goal setting. Overcoming these challenges requires effective change management and leadership support. This article proposes a structured approach to integrating OKRs and KPIs within supply chain performance management (SCPM), aiming to leverage their complementary strengths. We review existing literature on supply chain KPIs and the OKR methodology, developing a cohesive framework where KPIs provide diagnostic insight and control, while OKRs drive strategic initiatives and alignment with evolving business priorities. The article synthesizes recent conceptual and empirical insights to illustrate how an integrated OKR-KPI system enhances supply chain agility, resilience, and strategic coherence. Furthermore, innovative practices, such as using predictive analytics for proactive management and extending goal alignment across supply chain partners, are discussed.

## **2. Literature Review and Background**

### **2.1 Supply Chain Performance Management and KPIs**

Performance measurement in SCM has evolved over decades, with KPIs at the core of most frameworks (Anand & Grover 2015). A KPI is a measurable and quantifiable metric used by organizations to evaluate their current performance and track progress toward operational goals over time (Graham et al. 2015; Mtau & Rahul 2024). KPIs are essential for benchmarking performance against targets or standards and for triggering corrective actions when

performance deviates from expectations (Anand & Grover 2015; Chae 2009). Some supply chain KPIs include metrics related to reliability (e.g., on-time delivery rate, perfect order fulfillment), responsiveness (e.g., order fulfillment cycle time), and cost (e.g., logistics cost per unit, cost of goods sold). Companies track these indicators to ensure that each link in the supply chain is performing to expectations and contributing to overall business goals. Measuring, tracking, and managing the performance of supply chain processes is considered critical in the face of global competition and customer demands (Gunasekaran et al. 2004). Effective performance management involves applying processes, methods, metrics, and technologies in a coordinated way to create a consistent alignment between supply chain strategy, planning, execution, and control (Stefanovic 2014).

Over time, several structured approaches for SCPM have been emerged. One influential model is the Supply Chain Operations Reference (SCOR) model<sup>1</sup>, which defines over 250 metrics for processes like plan, source, make, deliver, and return (Nicoletti 2023). Another is the Balanced Scorecard, introduced by Kaplan and Norton (1992), which links performance measures to an organization's strategic objectives across financial, customer, internal process, learning and growth perspectives. The Balanced Scorecard represented a shift from purely financial KPIs to a more holistic set of metrics tied to strategic goals (Tawse & Tabesh 2023). In a supply chain context, operational metrics (like warehouse efficiency or supplier quality) are connected to higher-level outcomes (like profitability, market share, or customer satisfaction). Performance management frameworks emphasize that metrics should exist at multiple hierarchical levels (strategic, tactical, operational) and be integrated vertically and horizontally (Clegg et al. 2025; Dahinine et al. 2024; Yorks et al. 2022). For example, a high-level goal of improving customer satisfaction (strategic KPI) might be translated to tactical KPIs for supply chain responsiveness, which in turn depend on operational KPIs for order processing time and delivery accuracy.

Despite the availability of sophisticated KPI frameworks, organizations often encounter difficulties in practice. A recurring issue is the lack of integration between SCM and performance management systems (Stefanovic, 2014; Tambare et al. 2022). Many performance management models historically focused on single enterprises or specific domains (such as only financial metrics), whereas supply chains are inherently inter-organizational (van Fenema & Keers, 2018). Alignment becomes more complex in extended networks, where each partner may have its own KPIs and priorities (da Piedade Francisco et al. 2012). Without shared goals or metrics, optimization by one firm (e.g., minimizing inventory) may conflict with another's objective (e.g., maximizing service level). This misalignment highlights the importance of performance indicators that link and integrate the efforts of different supply chain partners to meet end-customer requirements (Saleheen & Habib 2023). In response, companies are increasingly adopting standardized metrics and benchmarking across their networks. Industry-standard KPIs enable performance comparison, help identify improvement areas, and foster collaboration by clarifying performance expectations (e.g., a supplier and manufacturer agreeing on a target for on-time delivery). Shared KPIs across organizational boundaries can serve as a common language of success (Mtau & Rahul 2024). When all parties focus on end-to-end metrics, such as total order fulfillment time or overall cost reduction, it enables synchronization and joint problem-solving rather than conflicting efforts.

Another challenge is that traditional KPIs are predominantly lagging indicators, capturing outcomes of processes after the fact. While effective for accountability and post-performance evaluation, they may not alert managers to emerging issues early enough to prevent them (Parmenter 2015). To address this, there is growing interest in incorporating leading indicators and predictive analytics into SCPM (Oyewole et al. 2024; Stefanovic 2014). Leading indicators can predict future performance and provide early warnings, enabling proactive course corrections. For instance, a surge in rush orders or a drop in forecast accuracy this month could signal potential delivery delays or stockouts next month. By monitoring such signals, organizations can respond to trends before they fully manifest in lagging KPI results. Recent research and practice increasingly advocate for proactive, forward-looking performance management approaches that foster more intelligent and adaptive supply chains prepared for future disruptions (Alla et al. Stefanovic 2014; Wang & Li 2024).

Over the years, companies have developed sophisticated KPI dashboards and business intelligence systems to monitor operations in real time and maintain alignment with defined standards (Uddin et al. 2021). However, conventional KPIs often focus on existing processes and historical data, excelling at maintaining the status quo but less effective in driving innovation or strategic change. Literature notes that overemphasis on KPIs can result in tunnel vision or

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<sup>1</sup> scor.ascm.org

perverse incentives. In other words, employees may concentrate on optimizing what is measured, potentially at the expense of broader objectives (Mohammad 2023). Additionally, excessive reliance on established KPIs may lead organizations to prioritize short-term performance over long-term strategic objectives. This dynamic can foster what Adobor (2025) terms a “complacency trap,” in which the consistent achievement of existing KPIs creates a false sense of success, while broader organizational goals remain overlooked or underdeveloped. Thus, while KPIs are foundational for operational discipline, complementary tools may be necessary to drive strategic transformation (Rompho 2024). The current trend in SCPM is moving beyond static dashboards of historical KPIs towards more integrated, aligned, and forward-looking systems. This opens a compelling opportunity to incorporate complementary frameworks, such as OKRs, to further enhance strategic alignment and adaptability (Day & Holzniekemper 2025).

## 2.2 OKRs

OKRs have emerged as a popular framework for strategic goal-setting in organizations. The OKR framework, popularized by Andy (Andrew) Grove, “Father of OKRs and the Intel CEO” (Helmold 2022) and later by John Doerr, emphasizes setting ambitious and inspirational goals to motivate employees and deliver meaningful business outcomes (Vellore 2022). Grove’s key insight was to align the entire organization around a few critical goals and to emphasize execution and results over hierarchy or activities. An “Objective” in OKR terminology refers to a qualitative, aspirational goal, while “Key Results (KRs)” are quantifiable outcomes that measure progress toward that objective (Niven & Lamorte 2016). The third element of the OKR framework is initiatives, all required tasks to reach KRs (Van der Pol, 2025). Objectives are designed to be challenging, encouraging teams to go beyond the status quo, whereas KRs provide a measurable basis for evaluating success (Zierock et al. 2024). The methodology originates from Grove’s evolution of Peter Drucker (1954)’s Management by Objectives (MBO) concept and considered as the third generations of this concept (Cunha et al. 2025). Although the framework originated in the tech sector, its principles of clarity, alignment, and aspirational goal-setting are broadly applicable (Doerr 2018), including within SCM. Figure 1 shows a sample of the OKR template used by a company to optimize its inventory management.

SMART Objectives	Objective Weight	SMART Key Results	Weight	Deadline	Target		Actual	Source of Data	KR Progress	KR Achievement	Objective Achievement
					End of H2- 00	Min	Max				
Optimize Inventory Levels and Reduce Holding Costs	74.0%	Implement a reliable inventory management system software	23.0%	12-30	50%	100%	70%	IT Systems Audit, Implementation Logs	40%	9.2%	21.1%
		Reduce excess inventory by 10%	23.0%	12-30	50%	100%	60%	Inventory Planning System, Inventory Turnover Reports	20%	4.6%	
		Achieve a 95% order fulfillment rate	15.0%	12-30	0%	100%	20%	Order Management System, CRM Reports	20%	3.0%	
		Increase the inventory turnover ratio to 8.3	13.0%	12-30	40%	100%	60%	Inventory Management Dashboard, ERP	33%	4.3%	
Enhance Warehouse productivity	26.0%	Reduce the average order processing time by 15%	6.0%	12-30	0%	100%	80%	Warehouse Execution System, Time-motion studies	80%	4.8%	9.6%
		Reduce warehouse labor cost by 10%	6.0%	12-30	0%	100%	80%	Payroll System, Labor Cost Reports	80%	4.8%	
		Implement IoT technology to improve inventory accuracy by 95%	14.0%	12-30	20%	60%	0%	IoT Monitoring	-50%	0.0%	
	100.0%		100.0%								30.7%

Figure 1. OKR Template

In essence, OKRs shift performance management from simply measuring the present to defining and achieving future possibilities (Helmold 2022). OKRs are characterized by several distinct features that differentiate them from traditional KPI-based systems. First, OKRs emphasize focus and prioritization by limiting the number of objectives (typically three to five per level) (Niven & Lamorte 2016), following the “less is more” philosophy. This ensures that organizational efforts concentrate on a few strategically critical goals rather than becoming diluted across an excessive number of metrics (Lamorte, 2022). Second, they are inherently ambitious and designed to stretch performance boundaries (Zierock et al.2024). A success rate of about 70% is typically recommended, encouraging innovation and risk-taking, and signaling that consistent 100% achievement may indicate goals are not ambitious enough. This represents a significant cultural departure from KPI-driven systems, where falling short of a target might be perceived as failure. Third, OKRs operate in time-bound, iterative cycles, commonly quarterly, which supports agility and enables timely reassessment of goals based on evolving circumstances (Criado et al. 2024).

Unlike many KPIs that operate on static timelines, OKRs prompt regular reflection and adaptation. Fourth, OKRs encourages employee engagement and autonomy by involving teams and individuals in setting their own objectives that align with broader strategic goals (Rompho & Truktrong 2024). This approach fosters ownership and motivation, in contrast to the often top-down nature of KPI monitoring. Lastly, OKRs serve as a bridge between strategy and execution (Rompho 2024). They translate high-level strategic themes, such as enhancing sustainability, increasing responsiveness, or digitizing supply chain processes, into tangible and measurable actions.

It is important to note that OKRs are not meant to replace KPIs (Rompho & Truktrong 2024). Instead, they often incorporate KPIs as key results or use them as benchmarks for setting targets. The distinction lies in application: KPIs indicate what is happening (e.g., declining delivery performance), while OKRs define desired outcomes (e.g., improve delivery performance by 20%) and provide a path to achieve them. OKRs bring direction and urgency to otherwise isolated metrics. Additionally, OKRs emphasize outcomes rather than activities. This outcome orientation aligns well with supply chain performance objectives, which ultimately seek to impact cost, quality, speed, and service. Table 1 summarizes the key differences and complementarities between KPIs and OKRs.

Table 1. Contrasting OKRs and KPIs

Feature	OKRs (Objectives and Key Results)	KPIs (Key Performance Indicators)
Primary Purpose	Drive change, pursue ambitious/stretch goals, foster innovation	Monitor operational health, measure efficiency, maintain standards
Focus	Future-oriented, significant improvement, strategic transformation	Current performance, process stability, ongoing operational execution
Structure	Qualitative, inspirational objectives supported by quantitative key results	Quantifiable metric evaluated against a predefined target or benchmark
Timeframe	Short, iterative cycles (e.g., quarterly), explicitly time-bound	Continuous monitoring, typically aligned with longer-term trends
Flexibility	Highly adaptable, frequent reviews and realignments are encouraged	Lower adaptability, more static and stable over time
Measurement	Progress tracked towards an aspirational outcome (often 0-100% or 0-1.0 scale)	Performance evaluated against defined targets (e.g., 95% on-time delivery)
Alignment Mechanism	Promote transparency, cascading objectives, shared goals across teams and functions	Typically follows a hierarchical structure, cascading from strategic to operational
Types	Committed OKRs, Aspirational OKRs, Learning OKRs	High-level or low-level KPIs, Leading or Lagging KPIs

### 3. Toward an Integrated OKR-KPI Framework in Supply Chains

KPIs indicate whether objectives have been met, but they focus on past performance and must be paired with a strategic framework to guide how goals should be achieved (Criado et al. 2024). Given the complementary nature of OKRs and KPIs, integrating the two frameworks in SCPM is a logical progression (Wulff et al. 2024). An integrated approach allows managers to use KPIs to monitor baseline performance in key supply chain domains while employing OKRs to drive improvements or strategic change. This dual system addresses both operational stability and innovation (Cunha et al. 2025). KPIs ensure day-to-day performance remains within acceptable thresholds, while OKRs push the organization toward new milestones and strategic initiatives.

Literature increasingly supports combining multiple performance management methodologies to maximize their respective benefits (Cunha et al. 2025; Fantozzi et al. 2024; Sultan, 2022). The integration of OKRs with KPIs resonates with the management control theory by Simons (2019), which distinguishes between diagnostic and interactive control systems. In this context, KPIs serve as diagnostic tools, which are regularly measured indicators that flag deviations from targets, while OKRs act as interactive tools that engage the organization in strategic conversations and goal setting. This structured integration ensures that short-term operational excellence does not come at the expense of long-term strategic progress. For example, an organization may maintain a KPI dashboard for critical metrics (e.g., on-time delivery, inventory levels, forecast accuracy), while quarterly leadership reviews identify areas needing improvement or innovation. For each chosen area, an objective is defined (e.g., “Enhance supply chain resilience against disruptions”) and several KRs are set (e.g., “Qualify two alternate suppliers for all single-source components by end of Q4”, “Increase safety stock levels for critical items to cover 2 weeks of demand”). These KRs are often measured by specific KPIs (number of dual-sourced parts, inventory coverage duration), linking the OKR directly to the KPI system.

A key challenge in this integration is ensuring alignment between OKRs at different functional levels and overarching organizational goals. In complex supply chains, different units, such as procurement, manufacturing, logistics, and planning, may set function-specific OKRs. To avoid conflict and fragmentation, these OKRs must align with shared corporate KPIs. For instance, if a top-level KPI targets improved customer satisfaction, procurement might focus on

supplier quality, logistics on delivery speed, and planning on forecast accuracy. Although each OKR is tailored to the function, the collective effort supports the overarching goal, ensuring cohesion across the supply chain.

Successful integration also requires cultural readiness and effective change management. Organizations must clearly communicate that OKRs are not punitive measures but are intended to inspire and coordinate improvement. Shifting from a rigid “achieve or fail” mindset to a learning-oriented culture fosters experimentation and progress, even when stretch goals are not fully met. Transparency is equally critical. Public OKRs across teams promote accountability and invite cross-functional support (Fantozzi et al., 2024). Leadership can ease the transition by highlighting early wins and emphasizing collaboration over blame. This aligns with research findings that OKRs enhance acceptance of performance indicators by increasing employee involvement, satisfaction and ownership of goals (Criado et al. 2024; Rompho 2024).

It is also important to recognize that not all KPIs require associated OKRs (Rompho, 2024). Some KPIs, often called “health metrics,” are essential to monitor but not the focus of immediate improvement. For instance, a warehouse may track numerous KPIs daily, such as safety incidents, order accuracy, and productivity, but prioritize only a few for OKR development each quarter. The integrated system must distinguish between continuous monitoring (KPI dashboarding) and strategic objectives management (OKR cycles). Both elements should feed into management discussions: KPI reviews to ensure control and compliance, OKR reviews to drive change and innovation.

#### 4. A Conceptual Framework for Integrating OKRs with KPIs in Supply Chains

The proposed framework categorizes performance measures into two complementary groups: Operational Performance Metrics (primarily KPIs) and Strategic Performance Objectives (managed through OKRs). Together, they create a closed-loop system for performance monitoring and improvement. Figure 2 illustrates a structured process for integrating OKRs with KPIs in supply chain performance management. The left side of the diagram represents a sequential flow starting with Strategy Articulation, where top-level strategic priorities are defined. These priorities are translated into function-specific OKRs through Objective Formulation, followed by KR Definition that identifies measurable targets for each objective. KPI Mapping connects these key results to relevant operational KPIs, ensuring alignment between strategic goals and measurable outcomes. Platform Integration emphasizes the use of digital tools to synchronize OKR tracking with existing KPI dashboards, while Cadence Design ensures that OKRs and KPIs are reviewed in a harmonized rhythm.

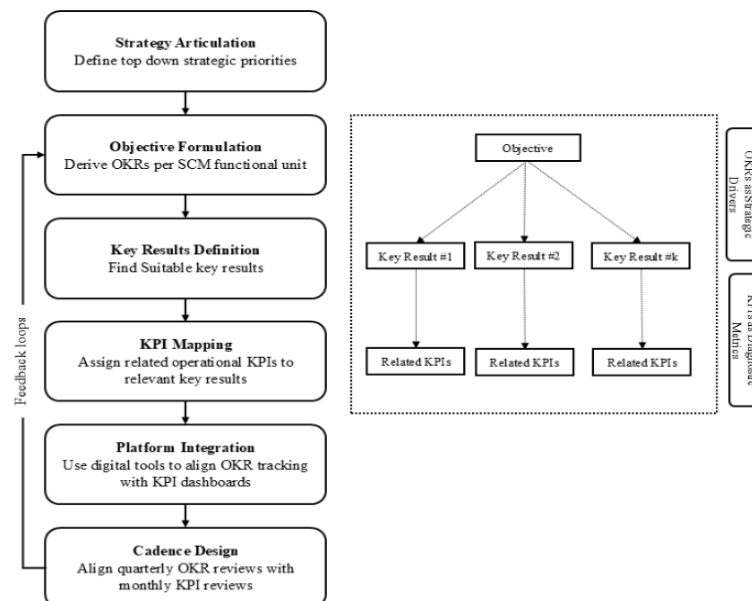


Figure 2. Conceptual OKR-KPI Integrated Framework

On the right, the hierarchical structure shows how each objective is linked to multiple key results, which in turn are supported by related KPIs. This visual structure reinforces the importance of cascading alignment and feedback loops to enable both performance monitoring and strategic progression.

**1. Role Delineation:** The framework first clarifies the distinct roles of KPIs and OKRs.

- **KPIs as Diagnostic Metrics:** KPIs function as diagnostic tools that continuously assess process health. Monitored via dashboards and managed by designated owners, KPIs help answer, “Are our ongoing operations performing within acceptable parameters?” For example, an order fill rate KPI with a set threshold can quickly indicate when corrective action is needed.
- **OKRs as Strategic Drivers:** OKRs, on the other hand, drive strategic change. Rather than being continuously tracked, they are set for specific timeframes and are aimed at achieving stretch goals. OKRs answer, “What are the most important improvements or innovations we must make now?” Each OKR is linked to one or more KPIs, signifying where transformation is most urgent.

This role delineation avoids the confusion of dual accountability systems. KPIs remain foundational for performance evaluations, while OKRs are aspirational and learning-focused. Decoupling OKRs from compensation can encourage honest and ambitious goal-setting without fear of punitive consequences.

**2. Cascading Alignment:** The framework emphasizes cascading OKRs and aligning them with KPIs at all organizational levels. The enterprise or supply chain division defines a few high-level OKRs linked to strategic themes. These cascade down to mid-level objectives for departments (procurement, production, distribution, etc.), which further cascade to team or individual objectives. At each level, the KRs are quantitative targets for relevant KPIs. Crucially, all KRs roll up to support the higher-level KRs and ultimately the top-level KPIs. For example, at corporate level an OKR might be “Improve overall supply chain efficiency by reducing total SCM cost as a percentage of sales from 8% to 6%.” This might be broken down into OKRs for sub-functions: Procurement: “Increase direct materials sourcing efficiency” with KRs like “achieve cost savings of \$5M through strategic sourcing (measured by cost of materials % reduction KPI)”. Logistics: “Optimize transportation network” with KRs like “reduce freight cost per unit by 10% (measured by logistics cost KPI)”. Inventory Management: “Implement lean inventory strategies” with KRs like “cut average inventory days from 50 to 40 (measured by inventory turnover KPI)”.

Each of these functional KRs targets a specific KPI, and together their achievement would contribute to lowering the overall cost percentage, which is the enterprise KPI of interest. This cascading approach ensures vertical alignment – strategic objectives down to operational actions and avoids the situation of divergent objectives mentioned earlier where corporate and operational goals are not in sync. For horizontal or cross-functional alignment, the framework encourages the definition of shared OKRs or cross-functional KRs for processes that span multiple departments or companies. Supply chain processes can typically cut across functions. One way to integrate efforts is to set an OKR for the entire value stream. For instance, a cross-functional OKR could be “Improve end-to-end order fulfillment time by 30%”. Achieving this might involve procurement speeding up supplier deliveries, manufacturing, reducing cycle times, and logistics accelerating shipping.

All teams would see their piece in the form of KRs, and progress is tracked collectively. This approach fosters communication and collaboration (Day & Holznienkempfer 2025). In a supply network, this idea can extend to external partners as well. A manufacturer and a key supplier might establish a joint OKR. For example, “Zero stockouts of critical component X” – which would entail actions on both sides (supplier improving its delivery reliability KPI, manufacturer improving its forecasting accuracy KPI). By sharing such objectives and results, OKRs can be extended beyond internal boundaries to foster collaboration across the entire supply chain. While this is still an emerging practice, some advanced supply chains have started to include suppliers in their strategic goal-setting exercises, essentially treating the extended supply chain as one team with common goals which is defined as supply chain integration (Madanchi et al. 2024).

**3. Enabling Tools and Analytics:** To implement this framework effectively, enabling technologies are important. Performance management software is evolving to handle both KPI tracking and OKR management, creating an integrated platform where strategy and operations converge. Business intelligence (BI) systems and dashboards provide real-time monitoring of KPIs, primarily applying descriptive and diagnostic analytics to assess historical

performance and identify improvement areas. Simultaneously, specialized OKR tools support structured, forward-looking goal setting, often enhanced by predictive and prescriptive analytics. This combination facilitates proactive strategic planning and decision-making. Some organizations have started to incorporate predictive and even prescriptive analytics into these platforms, which can be a game-changer for proactive management. If predictive models indicate that, for instance, the on-time delivery KPI is likely to drop in the next month due to emerging trends (perhaps detected via AI analyzing supplier data), an OKR could be formulated immediately to counteract this (e.g., “Objective: Mitigate impending delivery delays,” with KRs like “find two backup logistics providers and re-route 15% volume within one month”). By fusing descriptive KPI analysis with forward-looking OKR initiatives, organizations can build a responsive, data-driven performance management cycle. This holistic integration of analytics and goal management tools enhances decision quality in supply chain management and fosters long-term strategic advantage.

**4. Continuous Review and Adaptation:** The framework supports regular KPI and OKR reviews, with feedback loops between the two. Weekly or monthly KPI reviews ensure operational control, while quarterly OKR reviews guide strategic focus. Underperforming KPIs may prompt the creation of targeted OKRs, while successful OKR initiatives can lead to higher KPI targets in future cycles. This adaptive structure also allows mid-cycle adjustments in response to disruptions or strategic pivots. OKRs provide the mechanism for injecting new priorities, enhancing the agility and resilience of the supply chain.

**5. Culture and Mindset:** A supportive culture is foundational to successful integration. Leaders must cultivate a mindset that values data-driven discipline (via KPIs) alongside innovation and ambition (via OKRs). Transparency, empowerment, and recognition of effort are key cultural enablers. Public sharing of results promotes accountability and collaboration. Encouraging team participation in OKR setting fosters ownership and creative problem-solving. Celebrating learning from unmet OKRs reinforces that they are a safe space for exploration (Fantozzi et al. 2024). Coaching on OKR best practices, such as those by Lamorte (2022) (“less is more,”), can help maintain focus (Day & Holznienkemper 2025). In supply chain contexts, this means prioritizing a few high-impact initiatives each quarter rather than spreading efforts too thin.

## **5. Discussion: Applications and Implementations of OKR-KPI Integration**

The proposed integration of OKRs and KPIs in SCPM represents both a conceptual advancement and a practical tool. Many organizations already engage in continuous improvement initiatives and OKRs can serve to focus, structure, and monitor these efforts. For example, a global logistics provider might use OKRs to prioritize high-impact initiatives each quarter. A quarterly OKR such as “Enhance Last-Mile Delivery Efficiency” could include key results like “Implement route optimization software in three major cities (measured by a 15% reduction in delivery time variance)” and “Increase driver productivity from 15 to 20 deliveries per shift.” These key results are supported by existing KPIs (e.g., route adherence, deliveries per shift), ensuring alignment and measurability. If fully achieved, the improvements become institutionalized, with updated KPI targets; if partially met, the OKR can be extended or refined in the next cycle. This ensures that improvement efforts are both strategic and measurable.

Supply chains today must frequently adapt to changes such as new market demands, disruptions (like supply shortages or geopolitical events), or strategic pivots (like adopting omni-channel distribution). OKRs can facilitate these transformations by breaking down big changes into manageable, measurable chunks. Take the example of a company that decides to make its supply chain more sustainable. A high-level OKR might be “Reduce carbon footprint of supply chain operations” with a year-end target of, say, a 25% reduction in CO<sub>2</sub> emissions (key result). Achieving this would require initiatives in transportation (e.g., optimize loads, switch to cleaner fuels), warehousing (e.g., energy-efficient equipment), sourcing (e.g., more local suppliers). Each of those could spawn sub-OKRs or specific KRs for the responsible teams, linked to relevant KPIs like fuel consumption, electricity usage, transport distance, etc. The OKR framework thus acts as a project management and accountability structure for driving the sustainability program. It translates an abstract goal (“go green”) into concrete outcomes across the supply chain. This not only guides the teams but also makes it possible to track progress transparently and adjust tactics each quarter.

Another compelling use of integrated OKR-KPI management is in collaborative, multi-firm supply chains. While traditional approaches rely on shared KPIs and service-level agreements, these often lack jointly owned improvement goals. Introducing co-developed OKRs, such as between a manufacturer and a third-party logistics provider (3PL), can elevate collaboration. For instance, an OKR like “Ensure Seamless Peak Season Operations” may include key results such as “Keep warehouse utilization below 95%” and “Maintain 99% on-time shipments.” Each partner aligns



resources and tracks performance through shared KPIs. This joint accountability fosters trust, encourages data transparency, and enhances coordination, especially as digital platforms increasingly support real-time information sharing.

A case example from a traditional manufacturing context further illustrates OKR-KPI integration. An automotive parts manufacturer facing cost pressures might traditionally rely on a Balanced Scorecard but introduce OKRs to catalyze improvement. At the start of the year, the executive team sets an OKR: “Significantly improve operational excellence to reduce cost by 15%”.

KRs include “Increase overall equipment effectiveness (OEE) from 85% to 95%”, “Reduce procurement spend by 10% via supplier development”, and “Cut order-to-delivery cycle time from 10 days to 7 days.” Each of these is clearly tied to a KPI (OEE, purchase cost, cycle time). The objectives are ambitious, pushing for beyond incremental improvements. Teams then break these down: the production department creates OKRs for predictive maintenance to boost OEE (with KRs on downtime reduction), the procurement department sets OKRs for negotiating contracts and finding alternate suppliers, and the supply chain planning sets OKRs for implementing faster scheduling techniques or inventory optimization to cut cycle time. Over the year, suppose they achieve two of the three KRs fully and one partially – perhaps OEE goes to 92% (not 95% yet), cost is down 10%, cycle time at 7 days achieved. This still represents significant gains. The partially met KR (OEE 92%) can be carried into the next cycle, or maybe after analysis, the target is adjusted if 95% was unrealistic. The important point is that without the OKR system, these departments might each have worked on improvements, but the OKR unified them under a common cost-reduction mandate and provided tangible targets. The outcome can be directly seen in financial results, validating the effort. An executive could correlate that meeting those OKRs led to a, say, 12% reduction in cost-of-goods-sold, which is crucial for competitiveness.

Across these applications, a pattern emerges: OKRs inject a focused, goal-oriented mindset into the performance management system, while KPIs serve as the objective backbone for measuring results. When implemented effectively, this integration enhances three critical capabilities:

- **Agility:** OKRs support rapid goal-setting and adaptation, helping supply chains respond to change. Their short time cycles (e.g., quarterly) foster flexibility, which contrasts with rigid annual KPI frameworks.
- **Alignment:** Shared OKRs break down silos by aligning cross-functional teams toward common goals. Procurement, logistics, and production units working together on an OKR to reduce lead time communicate more and coordinate better (Day & Holzniekemper, 2025).
- **Innovation:** By setting ambitious goals, OKRs encourage creative thinking. For instance, a team pursuing an OKR to improve forecast accuracy may explore AI-based demand prediction models, even if results are incremental. The organization still learns and builds capabilities.

Despite its advantages, the integration of OKRs with KPIs remains underexplored in both academic research and practice. Common challenges include conceptual confusion between the two frameworks, risk of setting too many objectives (OKR overload), and cultural resistance to transparent and ambitious goal-setting. Successful implementation requires effective change management, leadership support, and ongoing communication to clarify purpose and expectations.

## **6. Conclusion**

SCPM can be significantly enhanced through the integration of OKRs with traditional KPIs. This paper has presented a conceptual and practical roadmap for such integration, demonstrating how KPIs and OKRs can function together to maintain operational discipline while promoting strategic progress. While KPIs provide backward-looking insights and help sustain baseline performance, OKRs infuse a forward-looking, change-oriented dynamic into the organization’s performance culture.

The proposed framework delineates roles for KPIs (as diagnostic metrics) and OKRs (as strategic drivers), supporting alignment across hierarchical levels, encouraging collaboration across functions and firms, enhancing focus, increasing productivity and motivation, and enabling continuous improvement (Day & Holzniekemper 2025). The framework also emphasizes supporting tools, such as predictive analytics platforms, as well as the cultural foundations

of transparency, autonomy, and learning. The resulting performance system is not static; it adapts, evolves, and guides the organization toward both operational stability and transformative goals.

For practitioners, the key takeaway is that integrating OKRs into existing KPI-driven systems can elevate performance management without discarding what already works. A supply chain organization that asks, "What bold objective should we pursue next quarter, and how will we measure success?" is more likely to drive innovation and adapt to change than one focused solely on past performance. In addition, using this framework can increase the motivation of human resources (Rompho 2024).

For researchers, this integration opens new avenues for inquiry. Future studies could investigate performance differentials between integrated and non-integrated firms, optimal OKR-to-KPI ratios by industry, or the psychological impacts of dual accountability systems. The interaction between OKR-KPI systems and other trends, such as digitization or sustainability, also warrants attention. Early evidence suggests that OKRs may improve employee engagement with KPIs by fostering involvement in target-setting and strategic dialogue. Thus, integrated systems may not only enhance outcomes but also boost organizational health.

In conclusion, integrating OKRs with KPIs represents a promising strategy for enhancing supply chain agility, resilience, and strategic coherence. This dual approach enables organizations to navigate uncertainty, align resources around shared goals, and drive continuous improvement in pursuit of long-term success.

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