

People, Roles, and Capabilities

Transforming Supply Chain Operating Models

White Paper



Preface

As supply chains are operating under high stress and uncertainty, the spotlight is often on new tools and technologies as key enablers of improvement. However, what should be more in focus is, that people, roles, and capabilities are the missing link to make any transformation a reality. But how will the people side of supply chains change? And what does this mean specifically for evolving roles, new forms of collaboration, and new skill requirements in the supply chain team? What are the implications for companies' organization, governance, and people development? In this whitepaper, we reflect on how the new environment transforms supply chain operating models.

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A New Environment Requires Different Supply Chain Operating Models

The environment for supply chain management has changed fundamentally over the past ten years, and with it the requirements and development paths of supply chain professionals. The days when supply chain management was mostly about diligently executing material and information flows based on what was sold or produced are long over. Supply chain management has evolved from an executor and administrator to an integrator, value optimizer, and business enabler. In the past five years, we have seen an increasing recognition of the Chief Supply Chain Officer (CSCO) in the executive management team¹. With the onset of the COVID pandemic, CSCOs have also moved to the corporate spotlight, as they kept the company afloat in an environment where all certainties crumbled, and supply chain resilience became a license to operate for companies.

A more disruptive and uncertain environment clearly raises the bar for supply chain teams and how they operate, deeply impacting the necessary roles and responsibilities, capabilities, processes, and governance. We see four key themes which we will explore in detail in this whitepaper:



MEGATRENDS SHAPING SUPPLY CHAIN MANAGEMENT

Expectations on the supply chain's overall maturity, performance, and business contribution are rising significantly. This requires a new supply chain function that emphasizes embracing digital opportunities, connecting operations to commercial needs, strategically evolving supply networks, and embedding risk and sustainability in decision-making.



SUPPLY CHAIN ROLES ARE FUNDAMENTALLY CHANGING

The traditional supply chain roles are not only incrementally changing but transforming fundamentally across the board. The main theme is a shift in focus from order processing and manual data crunching towards business integration, stakeholder alignment, and proactive management of risks and opportunities.



NEW SUPPLY CHAIN CAPABILITIES NEEDED – THE RACE FOR UPSKILLING

Building new capabilities across all roles in the supply chain team is a top priority and cannot be neglected. The focus areas of upskilling are – with different nuances by role – stakeholder management, ownership and proactivity, technology fluency, and business understanding. We will explain the key requirements along the Camelot supply chain capability framework. the supply chain team.



A STRUCTURED UPSKILLING AND DEVELOPMENT CYCLE IS KEY TO SUCCESS

Companies need to closely connect supply chain strategy and performance with people growth and satisfaction so that both the company and its employees can benefit. Incremental improvements are not enough. It takes a paradigm change in supply chain people development to move from an expert to a management mindset, overcome the weaknesses of traditional systems training, and create more cross-functional experiences and exposure for the supply chain team.

¹ Jennings, E. (2021, June 11). The Rising Role of Chief Supply Chain Officer. Supply Chain Brain. <https://www.supplychainbrain.com/blogs/1-think-tank/post/33170-the-rising-role-of-the-chief-supply-chain-officer>

Megatrends Shaping Supply Chain Management

What is the starting point? Today's environment is very different from 15-20 years ago, when many of today's supply chain leaders started their careers. We see mainly four megatrends, which are calling for a new level of supply chain performance, as shown in figure 1. Firstly, exponential technology development is not only an opportunity for supply chain leaders, but above all an obligation to keep the pace in using more and more powerful solutions to outsmart the competition. At the same time, the business is counting on the supply chain to become a strong enabler of profitable growth, especially in times of shortages, inflationary pressures, and high customer service expectations. All this is happening in an environment where long-established certainties are challenged (e.g., always reliable/ just-in-time transport lead times, or global networks that rely on extensive cross-border trade flows), and old decision frameworks are no longer valid, especially with the challenge to integrate risk and sustainability in supply chain decisions. This requires the next generation of supply chains, with operating models and people which can navigate in this fundamentally new environment. In other words, supply chains need to be much more business-oriented, strategic and proactive, risk-aware, and digital-native. In the next chapter, we will examine what this means for the key roles in the supply chain of the future.

Four key developments raise the bar for supply chain maturity and performance

Figure 1:
Four key developments raising the bar on supply chain management

















Supply Chain Roles Are Fundamentally Changing

The ongoing developments are fundamentally changing the way people work in supply chain management and are not only restricted to a handful of roles. As a starting point for understanding the scope and focus of changing roles, we use our supply chain role taxonomy shown in figure 2. Typically, we differentiate approximately 14 archetypal supply chain-related roles across five clusters with a distinct purpose and focus of activities: business integration, tactical planning, operational planning, transactions & execution, and supply chain data & analytics.

Upstream and downstream supply chain roles are fundamentally transforming

Figure 2: Overview of the Camelot supply chain role taxonomy

ROLE CLUSTER	← UPSTREAM			DOWNSTREAM →		
	Procurement	Production & external supply	Supply planning	Warehouse & distribution	Demand planning	Customer service
Business integration <ul style="list-style-type: none"> Synchronizing supply chain goals and strategies with business requirements Strong integration with commercial units and management to make supply chain a competitive enabler 	 External supply chain		 S&OP manager		 Commercial supply chain (region, country)	
Tactical planning <ul style="list-style-type: none"> Translating business targets and requirements into feasible and profitable supply chain configuration/ plans Identifying and resolving risks and opportunities by integrating along the E2E supply chain 	 Material planner		 Tactical/ E2E planner	 Distribution network planner	 Demand planner	
Operational planning <ul style="list-style-type: none"> Ensuring smooth, stable, and reliable daily execution of supply chain processes Managing deviations and constraints in order to meet customer orders efficiently and on time 		 Work preparation	 Detailed scheduler	 Transport planner		
Transactions & execution <ul style="list-style-type: none"> Managing transactions in the system like order processing, invoicing, and customer requests Ensuring information transparency through accurate and timely provision of information 	 Purchasing manager					 Customer service manager
Supply chain data & analytics <ul style="list-style-type: none"> Analyzing data to gain insights into performance and root causes as well as enable decisions Identify trends, predict future demands, optimize routes, and enhance efficiency 			 Supply chain analyst	 Supply chain data scientist		

Based on many supply chain projects, we not only see some small and selective adaptations of single supply chain roles. Instead, new strategies and technologies require a broad tectonic shift in the way people work in supply chain management. This not only massively impacts the qualitative aspects, meaning the core purpose, responsibility, and ways of working of many supply chain roles, but also changes the size, structure, and composition of the entire supply chain team. So what practical changes are taking place? We will describe them along the five key supply chain role clusters, as illustrated in figure 3.

1 Business integration

One common theme of successful supply chain organizations is the strong integration with the business, making the supply chain a strong link for understanding commercial needs and translating them into operations strategies and tactics. This goes along with the growing importance of business integration roles, such as commercial supply chain leads, or S&OP managers. If successful, these roles must be an integral part of the business teams (e.g., on country, region, or business unit level), where they represent not only supply chain aspects (e.g., inventory, service, write-offs), but the holistic supply and operations aspect of decisions, which requires a significant step-up. These roles need to bridge in two directions: On the one hand, they need to ensure that demand-side plans, priorities, and uncertainties are deeply understood. On the other hand, they need to make sure that supply-side constraints, risks, and allocations are transparently shared and aligned. Leading supply chains are characterized by joint planning of the commercial and supply teams instead of pointing fingers at each other and blame game. This is where the business integration roles are a fundamental enabler. We see that companies need to invest in more resources for this area.

2 Tactical planning

Tactical planning. Tactical planning roles such as supply planners, network planners, and demand planners are the central points of the supply chain, connecting plans and targets with execution activities. These roles are faced with an avalanche of new technologies such as advanced planning systems, scenario planning, and real-time network optimization. On the one hand, however, the reality of tactical planning still involves a lot of manual activities in data collection, data crunching, as well as manual validation of supply plans, which take up a big share of time. On the other hand, too little emphasis is placed on proactively aligning with stakeholders across the E2E value chain to manage supply risks and improve profitability. In this regard, tactical planning roles must undergo a major change, as illustrated in the deep dive below: Planners need to leave Excel behind and work 100% work in the system, effectively leverage data-driven decision support tools from heuristics to AI, understand the market and financial impacts of supply, and master effective problem-solving of risks and opportunities in close collaboration with Commercial, Finance, Production, and Sourcing.

Deep Dive: Reality and Future of Tactical Supply Planning

In supply chain organizations, supply planners play a pivotal role by creating accurate and feasible supply plans 12-24 months out, and continuously adjusting them to the latest developments in markets, distribution, production, and sourcing. In their daily work, however, supply planners are often struggling with weak master data, usability issues of current systems, multiple system breaks, and a high amount of time lost in data verification, update, validation, include calculations in Excel. These exemplary steps from a typical supply planner routine illustrate the challenges.

The list shown makes clear how supply planners are often absorbed with data crunching, manual adjustments, and using non-integrated Excel. At the same time, they are losing the ability to leverage system-based planning, use modern heuristics for plan optimization, and take a broad cross-functional view of supply impact, including financial and market impact. If correctly configured, implemented, trained, and maintained, modern planning solutions can bring a major change, but will also require a step up in the role of supply planning, as described in this whitepaper.

EXEMPLARY STEPS FROM A TYPICAL SUPPLY PLANNER ROUTINE

- ▶ Review results of material requirements planning (MRP) in the planning board (in APS).
- ▶ Identify critical deviations in projected stock that require plan adjustment (manual searching, often side calculations, or downloads).
- ▶ Check the feasibility of plans against constraints (e.g., resource capacities and labor), often using separate reports or Excel sheets.
- ▶ Check and conduct adjustments in sequence and campaign plan (separate Excel file).
- ▶ Continuously replan including checking the feasibility of adjustments in different systems or views, e.g., material availability (ERP inventory tables), or capacity (ERP capacity views or separate reports).
- ▶ Align plan changes by mail or phone with impacted stakeholders.
- ▶ Prepare manual analysis and decision proposals for upcoming Sales and Operations Planning (S&OP) meetings.

IN THE FUTURE, SUPPLY PLANNERS WILL FOCUS ON

- ▶ **Exception-based planning:** Planners are prompted to review specific product locations which require attention, based on system alerts (e.g., stockout risk) and deviations.
- ▶ **Scenario planning:** Review system-generated scenarios with their impact on service, inventory, profit, and customer satisfaction, making informed decisions on best mitigation actions.
- ▶ **One source of truth:** Review the feasibility and market supply impact of plan adjustments directly in the planning tool and simulate refinements of the plan in real-time and end-to-end.
- ▶ **Data-driven plan optimization:** Continuously monitor the results and effectiveness of alternative algorithms and heuristics, deciding how to refine the approach.
- ▶ **Stakeholder collaboration:** Work with commercial and supply in one system on the best solution to supply issues, using real-time re-planning, and maximizing customer satisfaction/ profitability.
- ▶ **Automation reporting and analytics:** Leverage automated report-generation for key discussions such as S&OP, while focusing on dialogue with peers, and understanding business requirements.

3 Operational planning

In the new environment of higher volatility and many constraints, the challenge and criticality of operational planning, such as detailed production scheduling or transportation planning, is increasing massively. In the operational horizon, e.g., one to three months out, companies are often faced with the challenge to “manage demand to meet short supply”, which puts high expectations on operational planning to save the plan when reality hits. Operational planners can no longer optimize their schedules against some narrow functional targets e.g., OOE in production or truck utilization in transportation. Instead, they need to think broadly beyond their functional area and effectively juggle with several conflicting targets: ensure high schedule adherence while accommodating customer order changes; and allow last-minute schedule adjustments to best serve promotions or marketing activities, while not critically disappointing customers for base demand. Operational planners not only need to efficiently use deviation monitoring and alerts, but also work effectively with supply and fulfillment functions, taking allocation and trade-off decisions under high time pressure.

4 Transaction & execution

Transactional activities such as purchasing and customer order management have come under high productivity pressure, and have seen many initiatives for automation, far-/ nearshoring in internal shared services, and outsourcing. As this approach will be further adopted and expanded, transactional supply chain roles will see a major change through a stronger segmentation of activities in high and low value. On one side of the spectrum, customer service managers need to move from order administration to a more active customer relationship and stakeholder management. This refers to activities such as understanding delivery performance metrics for important customers, identifying root causes and measures for improvement, collaborative supply chain initiatives with customers, as well as open and proactive communications of issues and risks. On the other side, low-value activities like the operational order entry, checks, confirmation, execution, and tracking will continue to be further automated towards a low or no-touch process. The key tasks will lie here in the effective monitoring and overview to reliably spot critical deviations.

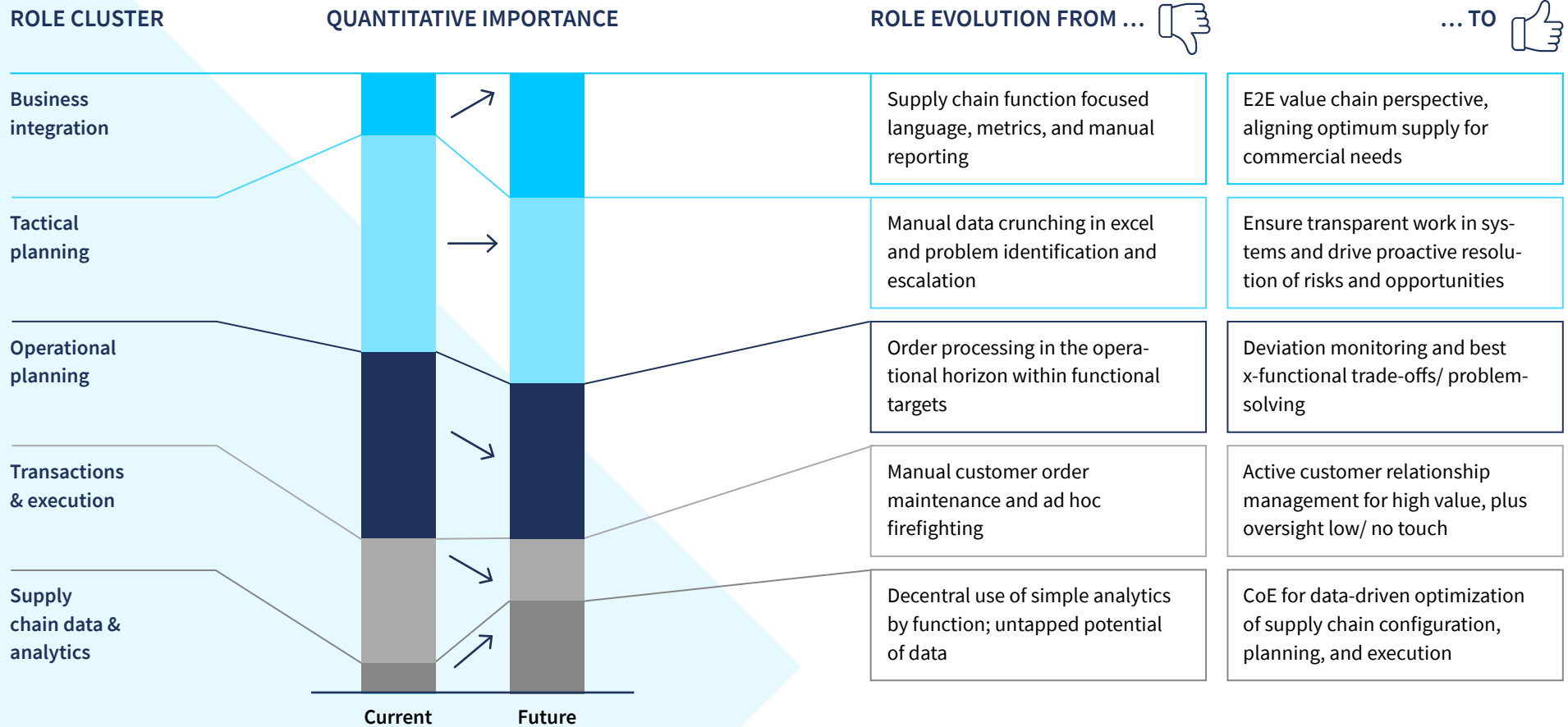
5 Supply chain data & analytics

While many agree that data & analytics hold major potential for supply chain configuration and optimization, few companies have yet reflected this in their roles and operating models. Thus, this is also an area where we see strong investment in capabilities and the establishment of new roles. Today, many optimization questions are still tackled with tools of the past (Excel, Macros) by individual planners. This will change as companies increasingly establish central teams or Centers of Excellence (CoEs) for important, data-rich optimization questions, such as inventory parametrization, root-cause analysis, stockout projection, and route planning. This requires a growing number of supply chain analysts with high skills in mathematics, data analysis, and modeling. In addition, data scientists who specialize in the development and coding of advanced algorithms are needed. Collaborating

closely with IT counterparts, they enhance algorithmic maturity and focus on pattern detection, optimization, and simulation techniques. They are the driving force in crafting data-driven solutions, leveraging new technology to optimize material flows, and providing robust, data-driven baseline plans to tactical and operational planners.

Supply chain roles see a significant shift towards business integration, proactive resolution of risks and opportunities, as well as automation and data

Figure 3:
Supply chain roles see a significant shift



In the next chapter, we will explore how the tectonic shifts in roles impact the capabilities required in the supply chain team.

New Supply Chain Capabilities Needed – The Race for Upskilling

In order to succeed in the new environment, companies need to continuously work on reskilling and upskilling their supply chain team. From the experience of many supply chain programs, the criticality of people capabilities is often well understood, but not followed through with enough focus and effort as part of the transformation journey. This needs to change, as the step change needed in skills across many supply chain roles is massive, and without focused upskilling, a successful transformation towards a more business-oriented and digital supply chain will not become a reality.

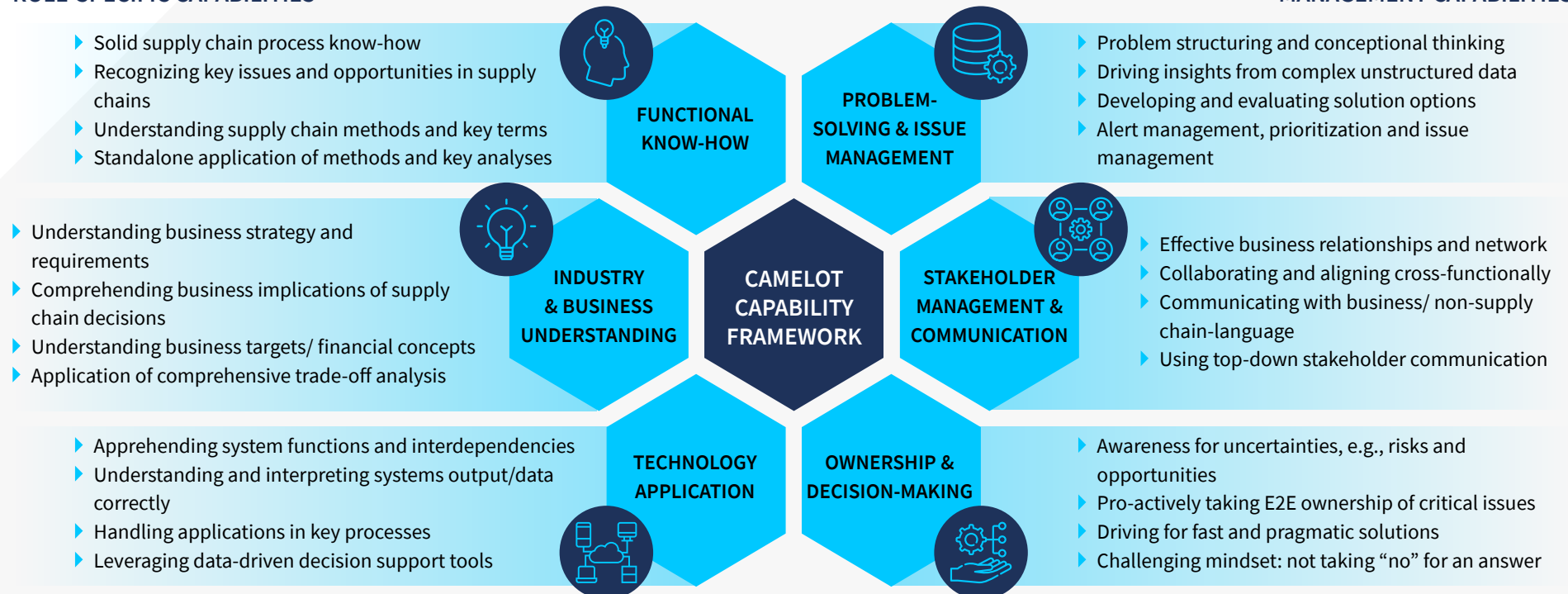
What is our frame of reference when talking about supply chain capabilities? Over the years, we have used and continuously adjusted a supply chain capability framework, as shown in figure 4. As can be seen, a broad view of the different capability areas is required, including both role-specific (functional) capabilities and general (management) capabilities. The importance and emphasis of the different capabilities will of course differ between roles, but the concept can serve as a good frame of reference for supply chain-related capability strategies.

The Camelot supply chain capability framework

Figure 4:
Supply chain
capability
framework

ROLE-SPECIFIC CAPABILITIES

MANAGEMENT CAPABILITIES





Supply chain capability requirements are changing significantly, and all key roles are impacted by that. Figure 5 gives an overview of the key hotspots of change. Overall, we see a couple of key themes for upskilling that are highly relevant for the supply chain team as a whole.



The first capability area where we typically see gaps is “stakeholder management & communication”. As supply chain performance and resilience become highly business critical, being the supply chain specialist who takes care of the technicalities of supply is very far from sufficient: many different roles such as commercial supply chain, planning, and customer service need to stronger shape and prepare important business decisions and integrate across functions. This requires a major step up and strengthening of core capabilities such as cross-functional collaboration and networking, communication with business language, and top-down communication of decision proposals to senior stakeholders and management. These skills are pivotal if the supply chain wants to evolve from executor and administrator to value optimizer and business enabler.



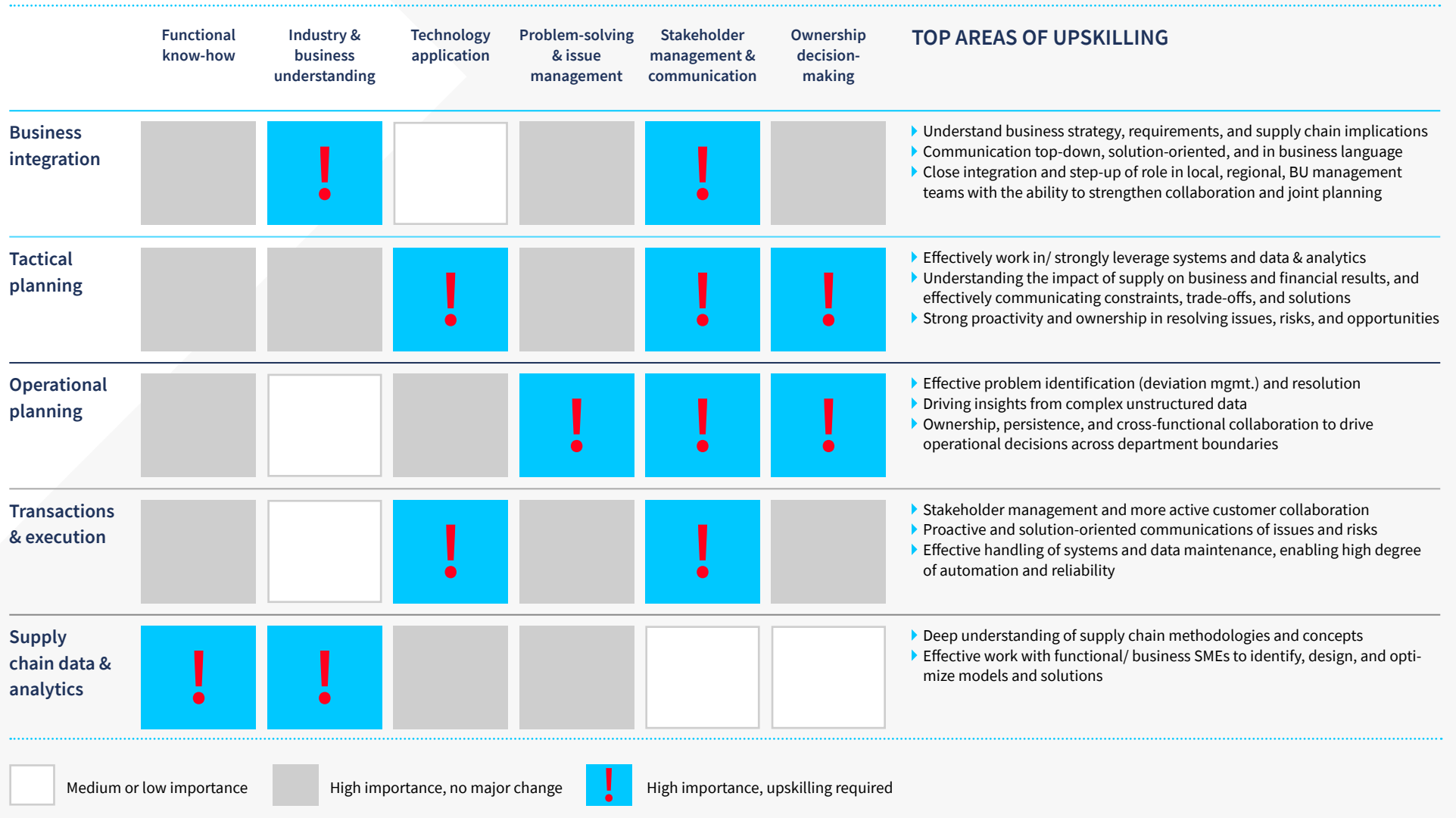
The second capability area we see high on the list of any fit-gap analysis is “ownership & decision making”. Tactical and operational planners need to proactively own and manage issues and risks E2E, e.g., from identifying short capacities, over effective constraint planning and open communication with commercial, down to ensuring that mitigation actions are taken in various areas of operations like Sourcing, Production, External Supply, and Logistics. The expectations are high on supply chain planners to show clear business judgment in the face of uncertainty, proactively raise issues early on, drive for fast and pragmatic solutions, and show a high amount of persistence, not taking “no” for an answer until the issue is resolved. All of the above describes a massive step up vs. a traditional planner role that is more centered around data analysis, validation, and execution of decisions.



The last key theme we want to highlight is the need for a step change in “technology application” capabilities. If companies want to stay competitive, the widespread practice that parts of the supply chain are still planned and tracked with Excel and Smartsheet must come to an end. And this is not only a matter of implementing new systems and strong discipline, but above all of capabilities. Companies must double down on training and ongoing coaching of teams to effectively work in systems and leverage their functions to the max. This includes building stronger capabilities around using functionalities, ensuring high master and input data quality, leveraging data-driven decision support tools, and interpreting systems outputs correctly. Long being neglected, technology-related capability building needs to get its fair share of investment compared to the build and run cost of new solutions.

Supply chain roles with major need for upskilling, key focus areas stakeholder management, ownership, technology, and business understanding

Figure 5: Major upskilling needs of supply chain roles



Setting up the supply chain for success requires new concepts and systematic investments in upskilling. Without this, companies will struggle to capitalize on new technologies, retain top talents, and make a step change in supply chain performance.

A Structured Upskilling and Development Cycle Is Key to Success

To address the challenges outlined in the previous chapters, companies need a structured upskilling and people development cycle for the supply chain. It is critical to proactively challenge whether the current operating model, roles, and capabilities still meet business needs and set us up for competitive advantage. Without translating supply chain strategies into a clear vision for capabilities and people development, investments in new supply chain technologies are unlikely to fall on fertile ground and might just become another tool that did not make it to full adoption.

As talent shortages persist, companies need to closely connect supply chain strategy and performance with people growth and satisfaction to make it a win-win for both the company and its employees. A targeted and effective upskilling approach is instrumental to attracting and retaining the best supply chain talent. How can the actions outlined in this whitepaper be implemented? Figure 6 shows an example approach that supply chain leaders should follow. The key questions they should ask are:

KEY QUESTIONS

- ▶ How will our ways of working change in the near and mid-term future? What are the resulting changes in roles and capabilities?
- ▶ Do we have the right skills to perform and match business expectations (fit-gap analysis)?
- ▶ What are development priorities by employees, and how do we support our people with new assets for learning, knowledge management, and coaching?
- ▶ How are we progressing towards the goals? Are we improving on the key outcomes like capability growth, employee satisfaction, and business performance?

How to set up a structured people development cycle to connect strategy and performance with people growth and satisfaction

Figure 6:
Structured
upskilling and
people develop-
ment cycle



We strongly believe that a step change is needed in supply chain people development, and not just incremental improvements and more of the same. We need to break with long-established paradigms and biases in three key areas in particular:



FROM EXPERT TO MANAGEMENT MINDSET

Supply chain management as a function has always had a strong expert culture and acknowledgment of functional expertise. Just take for example the intricacies of MRP, inventory replenishment, metrics, and value stream mapping, which bring with them a language or jargon often not understood by the business. However, the biggest capability gaps are on the other side of the spectrum, in lagging capabilities of stakeholder management, communication, ownership, and challenger mindset. These management capabilities must be an integral element of people development, not only on the leadership level but also for team members, and it is important to overcome biases that overemphasize functional know-how and expertise over so-called soft skills.



OVERCOMING THE WEAKNESSES OF TRADITIONAL SYSTEMS AND TECH TRAINING

Training and coaching have often been a weak point of systems implementation projects e.g., advanced planning systems. While training often focuses on system functionalities, a lack of translation to company-specific routines and decision-making often leads to insufficient understanding and acceptance of employees, who then avoid full adoption while sticking to Excel and Smartsheet. These weaknesses need to be overcome, but this requires a lot of hard work: companies need to overinvest in defining tangible business routines, document work instructions and decision rules, prepare company-specific cases for training, and provide high-quality hypercare support beyond just pure systems and application issues.



CREATING CROSS-FUNCTIONAL EXPERIENCES AND EXPOSURE

Joint learning, exchange, and communities with team members from other functions should be a key element of supply chain people development. It is critical to avoid functional myopia and create opportunities for supply chain team members to learn with and from other colleagues in commercial, R&D, and finance. This includes the systematic temporary job rotations of supply chain team members into critical market-facing roles such as country supply chain or customer service.

Conclusion

People, roles, and capabilities must be placed at the center of supply chain transformations. The often too narrow focus on processes and systems falls short and is not sufficient to achieve sustainable improvement for the business. The need for investment in people and upskilling is high, and implementation is lengthy and challenging. Companies need to acknowledge gaps and shortcomings, develop an aspirational people and operating model strategy, and start building a strong foundation for business-oriented, proactive and strategic, risk-aware, and digital-native supply chains.

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