



Mobility & Collaboration: Supply Chain's New Table Stakes

A QAD Leadership White Paper
for Supply Chain Mobility and Collaboration

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MOBILITY & COLLABORATION: SUPPLY CHAIN'S NEW TABLE STAKES

INTRODUCTION

In modern-day supply chains borders, time zones, and languages no longer present conventional obstacles to supply chain cooperation. Social media and advanced communications, trade-agreements, and multinational companies have flattened the world, and the players in a collaborative process may not be in the same geography or even in the same enterprise. Distributors can collaborate with contract manufacturers and third party logistics providers to solve a single problem.

ALWAYS CONNECTED

Supply chains, like most other facets of our everyday lives, have become increasingly connected and global. The Internet-of-Things (IoT) delivers real-time connectivity to billions of devices around the world. This has led to coupled supply chains capable of visualizing the real-time flows of demand and supply across countries, companies, industries and languages. But are we now data rich and insight poor?

This revolution of connected supply chains has not necessarily led to more cooperative supply chains. Connectivity has brought volumes of additional data points which must be interpreted to be meaningful. The increase in data volume and update frequency results in more data available more often. This can lead to more informed decision making, but, invariably, more data requires more effort and technology .

Having connected data is only part of the equation. The data certainly facilitates optimal decisions, but what happens next? To leverage connected data one must execute connected decisions. This means decisions that impact stakeholders across entities, geographies and

even supply chains. It is not enough for the data analysis to suggest using an opportunistic low-cost freight carrier if the carrier makes daily route planning and you are executing orders hourly. The decision-making time-fences need to be connected. This is true especially when performing end to end what-if analysis across the supply chain. The collaboration must occur within a decision-making time fence.

INSIDE-OUT TO OUTSIDE-IN SUPPLY CHAIN STRATEGIES

Business schools have long taught about the shift from Inside-Out (capability-centric) business strategies to outside-In (customer value-centric) business strategies. But it equally applies to supply chain strategy as well.

Inside-out: Traditional, Insular

Traditional supply chain collaboration occurred within the four walls of a single enterprise and often within a single location. The supply chain plan was based on data generated within the enterprise and was not normally shared externally. The actors in a collaborative process were usually colleagues of a common commercial entity. The techniques used for collaboration were whiteboards and email. Communication was prescriptive and structured with periodic meetings. Businesses might validate production capacity with the maintenance team, or review short term demand opportunities, or identify expedite or defer options in light of new potential demand. This model remains popular with smaller manufacturers or those that have not yet initiated a digitization strategy. Because the data, the processes, and the people exist purely within the enterprise looking out, this is often referred to as the Inside-Out model.

Outside-in: Customer-Driven

Outside-In supply chains are not chains at all but a network of relationships. Each network node is a point of known or speculative demand, supply or capacity. The nodes are not linear. Modern supply chain models recognize that demand does not originate within the four walls of an enterprise but with a market, customers and consumers. Likewise the capability to supply, manufacture, or distribute originates with suppliers, 3PLs and contract manufacturers.

Outside-In supply chain modelling looks at the complete supply chain holistically, of which a manufacturer is only one node. The actors in this model are not colleagues nor do they live in the same country nor necessarily speak the same language. Communication is unstructured in real time with no periodic meetings. The techniques used for collaboration are often subscription-based. Communication may occur between a person and a machine or an internet device or a bot. A typical item of business may be to explore the feasibility and profitability of using contract manufacturing capacity in China to satisfy unforecasted European demand requiring third party shipping and storage. However, the shift from Inside-Out to Outside-In disrupts how supply chains collaborate.

“40 different countries contributed to the manufacture of the Airbus A320.”

SOCIALIZING THE COLLABORATIVE SUPPLY CHAIN

To be able to leverage the connected supply chain, stakeholders and planning processes must be orchestrated across the supply chain. One would think that connecting people shouldn't be too difficult in this social media-enabled world. We can connect daily with potentially thousands of people in our personal lives. But how does one make the transition from a collaborative Facebook chat to mitigating a supply chain risk or exploiting a demand opportunity across a multi-enterprise supply chain?

No Longer Just About the Numbers

Surprisingly it is not so different. There are two key fundamental steps to multi-enterprise supply chain collaboration. The first is recognizing that supply chain planning is no longer just about the numbers. Demand and supply plans are great but they don't tell the entire story. Where are the risks and opportunities? What mitigation is planned? What action and follow up is required? Evaluating a supply chain plan solely by the numbers is like evaluating a company solely on its balance sheet and income statement. Consequently, supply chains, and especially supply chain technology, must support qualitative intelligence in the same way it supports quantitative intelligence.

Data Driving Collaboration

The second step is to decide what happens next. Data for the sake of casual reference is pointless regardless of whether it is quantitative or qualitative. All data must have a life and a role in a business process. New qualitative data (a question, an idea, an assumption) becomes the

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stem of a living communication thread. Not unlike social media, the thread needs to be shared to relevant stakeholders.

Just like social media stakeholders are able to respond. They may share the thread, escalate to others, ignore it, or drill into rich embedded content to gather additional information. The result is an indelible record tracking discussions across a multi enterprise supply chain. The thread could relate to planning tasks triggered by a workflow engine, it could relate to a change in capacity initiated by a connected IoT device, or a late supply delivery transmitted from a supplier system.

And, not unlike social media, it needs to be delivered on the platform that stakeholders are already using. Unless you are very influential, it is unlikely that the stakeholders are going to adopt an alternative communication medium solely to collaborate with you. From a technology perspective, this presents a solution that embeds social media-type interactions at the core of the planning solution.

FROM FIREFIGHTING TO VALUE-ADD.

Enabling real-time communications with internal and external stakeholders at the point of decision making will provide a huge value to planners who have access to a new range of potential planning actions not otherwise possible. In the future, however, machine learning and predictive techniques will tackle much of the repetitive effort to resolve the near horizon planning exceptions. This automation will redefine the typical planning role.

Supply chain planners of the future will be analytical deal makers and brokers. Their

collaborative reach will transcend the contemporary definition of a supply chain. Supply chain planners and, by extension, supply chain technology will focus on analyzing business scenarios and executing business transformations.

DON'T FORGET YOUR PHONE.

In 2019 there are 6.8 billion people on the planet. Of these, 5.1 billion own a cell phone, while only 4.2 billion own a toothbrush. (Source: Mobile Marketing Association Asia). Without disputing the importance of dental hygiene, these numbers highlight the importance of the role mobile technology will have in enterprise systems.

For an enterprise software solutions provider, transitioning from a desktop solution to a mobile solution is not about how best to deploy technology. It is about re-engineering your entire product offering to address a completely different market segment.

Modern mobile devices are much more than a touch screen. Mobile devices bring more of the human senses into play. Modern devices offer speakers and microphones, GPS & navigation, vibrational alerts, Bluetooth and near-field communications, cameras that can scan QR and barcodes, multilingual voice and handwriting recognition, and new security options such as fingerprint scanning. A mobile device is no longer about being mobile; it is about being relevant.

In the collaborative supply chain, enterprise technology must leverage this platform to survive. In the supply chain planning solution this means that the planner can log in securely with their fingerprint; they can receive notifications triaged by severity using audible alerts, vibrations or messages; they can use the camera to

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scan a barcode to get an immediate package identification and location update.

“Mobile & Social Media are no longer emerging Technologies. They are merged technologies.”

Workplace demographics play a role in this transition. Generation Z, individuals born between 1990 and the early 2000s, is now progressing into management roles that influence their organization's technology selections. They have been exposed to an unprecedented advancement of technology during their lives. This generation no longer clicks, they swipe. This is the generation of real-time everything. This is the generation of perpetual connectivity. And they see no reason why the supply chain planning experience should be any different. Their user experience must be intuitive, intelligent, responsive, social and “always-on.”

THE FUTURE OF COLLABORATION

Connected supply chains will proliferate as more connected devices, systems, and people share supply chain data. Eventually, there will be one or more digital ecosystems that transcend legal entities and countries. Such an ecosystem will be essential to connect Outside-In supply chains to sources of supply and demand. This will promote more coordination and cooperation among supply chain actors.

In 2012 McKinsey coined the term organizational “dark matter.” At the time, the phrase related to valuable stakeholder intelligence stored in emails or other difficult to access mediums. Such dark matter added intelligence and insight into decision making but was often ignored due to its inaccessibility. Fast forward to 2019 and the volumes and quality of dark matter have grown with the proliferation of electronic communication. Supply chain social collaboration offers the ability to shine sunlight on this valuable asset and leverage it for smart faster fact-based decision making.





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