SCM World

Supply chain learning for supply chain leaders

Collaborative Execution

Speed, innovation and profitability



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Introduction

SCM World, the leading global community and think-tank for senior level supply chain executives, brings you the results of its 'Collaborative execution: Speed, innovation and profitability' study. This report has been composed following interviews and surveys with 374 senior supply chain, sourcing and operations executives, spanning multiple industry verticals, detailing how SCM World's members define the concept of collaboration. Importantly, this paper also identifies where companies accrue most value from driving collaborative practice across the supply chain ecosystem, discussing impact on cost efficiency, risk mitigation and, ultimately, profitability.

The commentary also engages the community's perspectives on barriers to collaboration, accounting for a lack of information and connectivity across partners, as well as inefficiency of issue resolution.

Executive summary

- For suppliers, collaboration is primarily a means by which their customers share demand information, with 73% strongly agreeing this is a key aspect of collaboration
- On the customer side, an overwhelming 83% believe collaboration revolves around the supplier sharing availability information e.g. capacity, lead times
- Customers and suppliers have mirror image needs of collaboration; both need visibility and both want a dedicated problem solver
- Trust and governance are not key concerns for collaborative relationships, with less than one-in-three concerned with partners using information in a negative way
- Companies struggle to share information effectively, with 54% seeing lack of data visibility across trading partners as a perennial problem
- Speed of issue resolution is also major problem, with almost 50% identifying this as a barrier to effective collaboration
- Effective collaboration certainly creates cost efficiency, with 90% strongly agreeing this is the case
- Eighty-two per cent of respondents believe collaborative execution enhances the innovation process, asserting it makes experimentation easier and more effective
- Learning is faster in a collaborative environment, with 70% concluding the rate of learning increases by at least one-and-a-half times



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Collaborative execution and learning curves - Accelerating profitability

Collaboration is a perennial good in the world of supply chain management. By its very cross-functional nature, supply chain fairly begs for systematic collaboration across activities up and down the value chain. Collaboration between trading partners is nothing new, but the role of technology has changed the dynamic in ways that accelerate organisational learning for those companies who master the techniques of learning-by-doing at scale. This is the essence of collaborative execution: working together to improve supply chain performance by continuously solving real problems with better information.

The impact on process improvement is dramatic. Our research with 374 supply chain professionals suggests that the learning curve is significantly steeper in truly collaborative trading relationships. This means that any operational metric targeted such as inventory days, total landed cost, cash to cash cycle time can be expected to improve one and a half times as quickly as would be the case without collaborative execution. Compounded over a few years, such a learning advantage will leave slower competitors in the dust.

To understand the practicalities of this dynamic, we set out to unbundle the notion of collaboration in some detail. Our research starts by investigating what collaboration really means; both from the perspective of a supplier collaborating downstream with a customer and, in reverse, from the perspective of a customer collaborating with suppliers. We drilled into the barriers to collaboration, including the familiar notion that trust is a major problem, as well as the tactics of connectivity and information symmetry. Finally, we explored the supposed benefits of good collaboration, ranging from basic objectives like inventory efficiency to more strategic concepts like experimentation and system learning.

Our findings are surprising, primarily in terms of how decisively they point to an urgent need for companies to develop their ability to collaborate. Most revealing is the consistency with which respondents specify learning curve acceleration at around 50% faster than without collaboration. This finding holds steady across industries and company size, suggesting that positive experiences with collaboration are universally available provided the right steps are taken in terms of information flow and process governance.

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What is collaboration really?

The suppliers' perspective: Demand information and dedicated problem solvers

Definition may seem unnecessary for such an established concept but, given the potential for cynics to dismiss collaboration as a feel good notion or the equally common problem of enthusiasts lumping everything into it, we felt it was important to break it down. The data in figure 1 shows how suppliers perceive collaboration with their customers. First and foremost, suppliers are looking for information including forecasts, future product or promotion plans and anything else that may impact demand. Almost three-quarters agree with this definition of collaboration.

For respondents in consumer products, automotive and industrial sectors, the importance of demand information sharing is paramount. However, among pharmaceutical/healthcare suppliers and high-tech companies, the sharing of demand information was slightly less identified as essential to collaboration than having the customer dedicate resources to work jointly to solve problems. These two ingredients to good customer collaboration practices certainly go well together. Availability of dedicated staff, especially armed with good demand data, offers huge capacity for joint problem solving.

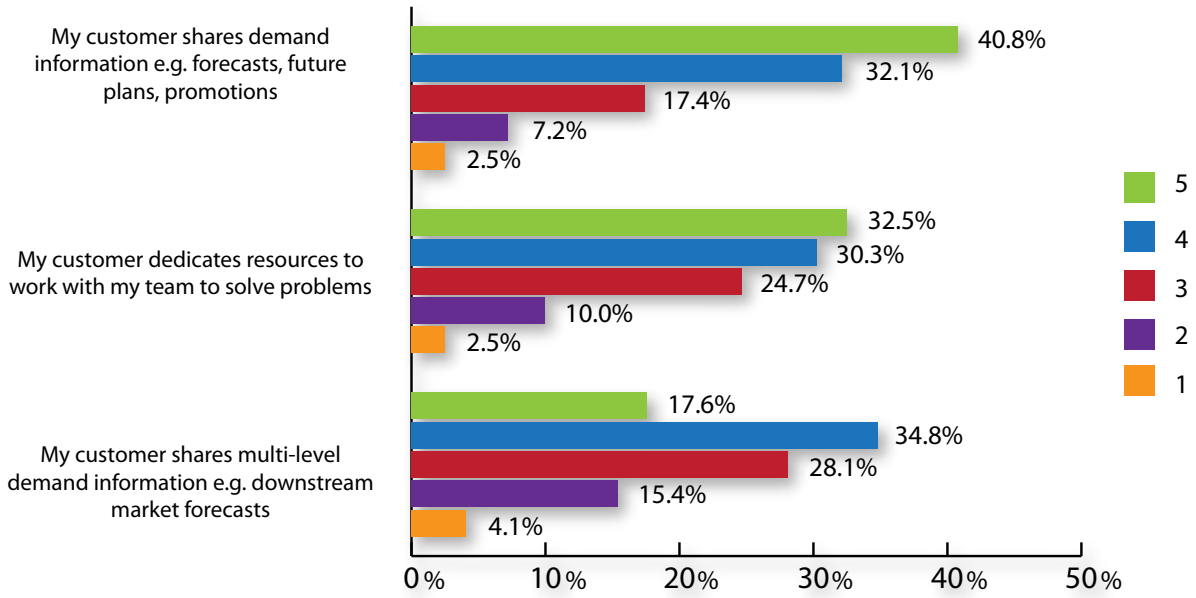


Fig.1 – What does collaboration mean to a supplier?
(Rank on a scale of one to five where one is disagreement and five is complete agreement)

We also asked about the importance of multi-level demand information sharing to collaboration. In some instances, especially highly-capital intensive businesses like semiconductor manufacturing equipment or metals, demand forecasts downstream are vital to financial planning. Companies like Applied Materials and Rio Tinto Iron Ores are generally able to extract decent multi-tier demand information from their top customers but often only after substantial arm-twisting. It stands to reason that any supplier would benefit from a more thorough understanding of downstream demand, but the survey data suggests that multi-tier demand visibility is less well understood by respondents who may not have experience of using such data to inform their strategy. Almost 20% overall disagree that such information is even part of the definition of collaboration. Only the relatively sophisticated consumer and industrial sectors appear to decisively expect multi-tier demand visibility (54% and 60% respectively) as part of collaboration with their customers - see figure 2. Typical examples might include Kraft, whose customer fulfilment function works to understand shopper demand at their retail customers' shelf or Konecranes, whose manufacturing customers share plans for capital expansion.

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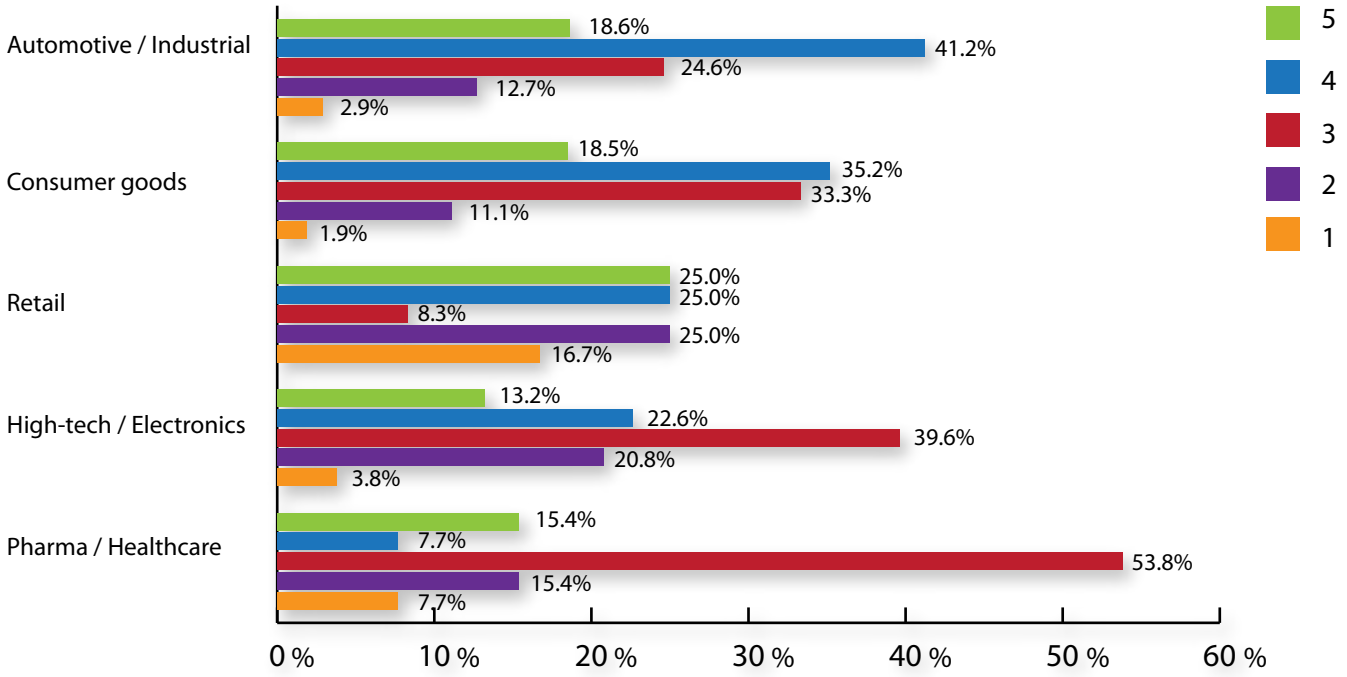


Fig.2 – My customer shares multi-level demand information e.g. downstream market forecasts: an industry comparison.
(Rank on a scale of one to five where one is disagreement and five is complete agreement)

The customers' perspective: Availability information, problem solvers and some savings

Turning the table on the collaboration question points to more symmetry than the cynics might expect. Information, in this case about availability of supply, is clearly the number one component of good collaboration for customers – 83% overall agree that this is essential (see figure 3). This data holds true across industries as well, with only retail showing a marked difference. And in this case, the need for availability information is even stronger, with 91% considering it important.

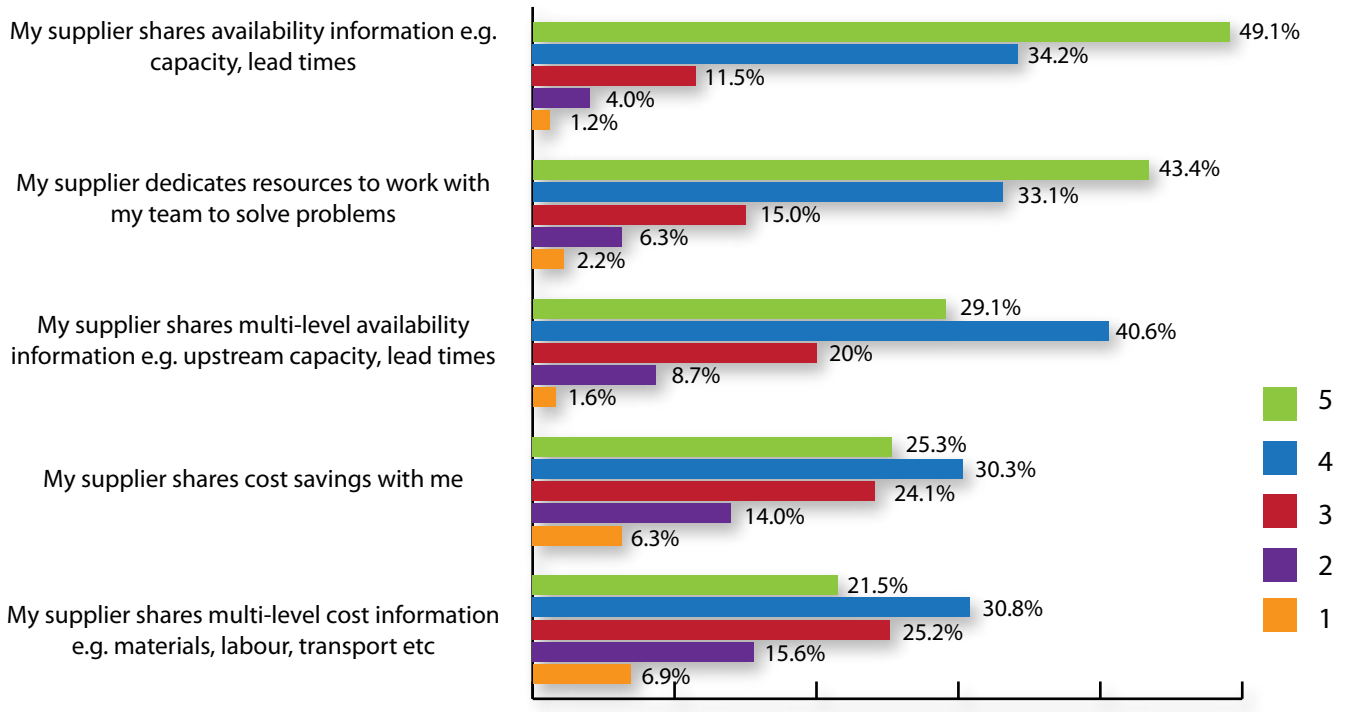


Fig.3 – What does collaboration mean to a customer?
(Rank on a scale of one to five where one is disagreement and five is complete agreement)

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"...sophisticated customers are prepared to leave cost management up to the supplier, so long as they can count on availability."

Multi-level availability is significantly less important. Less than 70% of respondents called this important while 10% disagree that it mattered at all. Breaking down the responses by industry shows that only consumer and retail supply chains expect much multi-level availability information. This finding probably reflects the acute sensitivity of these sectors to in-stock performance at the retail shelf, rather than any special degree of exposure to tier two or three supply shortages. High-tech and automotive, both of which have been impacted by tier two or three shortages in the past year, might be expected to demand this of collaborative supplier relationships and the survey response confirms this but less strongly than in consumer sectors. It is possible that multi-tier visibility is something only the most sophisticated supply chains can successfully exploit. An example might be Boeing, whose dependency on component suppliers several tiers up the chain could impact delivery times for jets worth hundreds of millions of dollars. Multi-tier visibility in such cases offers real benefit to supply chains able to develop contingency plans well in advance.

The second element expected of supplier collaboration is dedicated problem solving. By a margin nearly as decisive as that for availability information, customer-side respondents expect dedicated resources to work with them for problem resolution. Over three-quarters agree that this is essential to collaboration. Certainly such a pattern is well established in high-tech, where suppliers of key components will commit engineers and supply chain planners to their top customers. Apple has excelled at extracting such resource commitments from their key suppliers, some of whom, like Samsung and Foxconn, have built deeply collaborative relationships capable of surging to meet demand spikes without exploding costs.

Where customers' expectations of collaboration appear to stop short is in the area of cost information sharing. Although the data shows that a tiny majority (52%) thinks of collaboration in terms of seeing multi-level cost information, many disagree (23%). Cutting the data by industry may help explain this relative lack of insistence on cost information sharing. High-tech, consumer and industrial, whose experience with supply chain collaboration is deepest, dismiss this expectation while novice supply chains in pharmaceutical and retail seem to want it. It seems sophisticated customers are prepared to leave cost management up to the supplier, so long as they can count on availability.

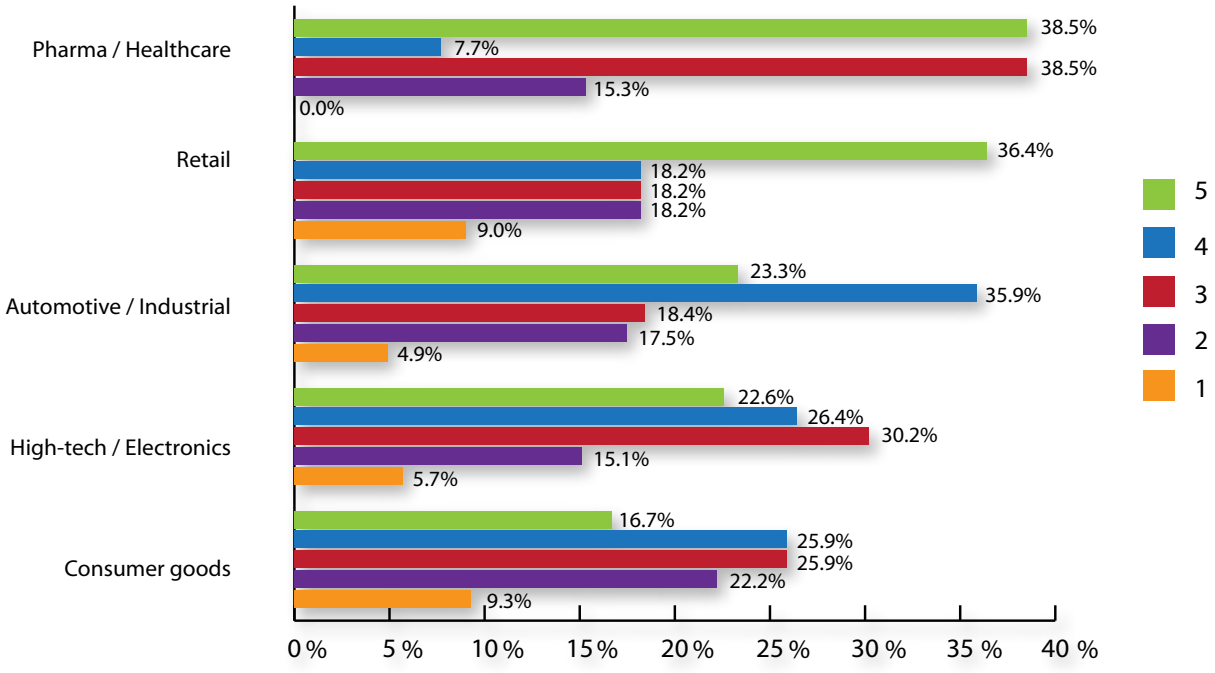


Fig.4 – My supplier shares multi-level cost information e.g. materials, labour, transport: an industry comparison. (Rank on a scale of one to five where one is disagreement and five is complete agreement)

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"...customer and supplier perspectives are nearly perfect mirror images of each other."

The data also shows some appetite for shared cost savings. It seems the collaboration ideal from the customer's perspective depends more on meeting downstream demand than on driving out costs. As later data shows, this may help explain why collaborative execution seems to be more about innovation and growth than grinding margins.

Collaboration agreement: Suppliers and customers match up well

If the customer is always right, how can collaboration happen? The customer-is-king mentality, so familiar to suppliers who find themselves jumping through hoops to win or keep business, might seem to make collaboration impossible given the obviously uneven playing field. The data in this survey suggests quite the opposite. In fact, responses to questions from the customer and supplier perspectives are nearly perfect mirror images of each other. Both expect resources dedicated to working the relationship and both expect visibility – supply on the one hand and demand on the other. Neither side appears to decisively require deeper visibility up or down the value chain, apparently preferring to trust the trading partner's ability to buffer volatility than to second guess them. This is what supply chain professionals expect of good collaboration; not necessarily what they get from all trading partners. Not all relationships work so well in practice.



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The spotlight on Research In Motion



Jim Rowan,
Chief Operating Officer, Global Manufacturing & Supply Chain,
Research In Motion

"For Research In Motion (RIM), collaboration centres on managing and balancing the demand-supply engine", asserts Jim. A decision to outsource a substantial portion of the supply chain four years ago increased the importance of collaboration, to ensure production partners and the multi-tiered supply base aligned themselves with manufacturing requirements and plans. "The global financial situation of 2009 intensified this further", Jim continues. "Carriers and distribution partners were slimming down inventory levels. This created a need for four-way collaboration where we had to ensure that data from our EMS partners and sub-suppliers were in synch with RIM lean delivery schedules to our customers".

Keeping pace with a rapidly changing environment is where RIM derives most benefit from its collaborative relationships. In the past two years alone, customer lead times have significantly decreased and RIM has had to successfully respond to this. "We've kept pace by ensuring all parties are effectively connected. By joining all the dots between suppliers, sub-suppliers, EMS partners, carriers and ourselves, we have managed to respond to this dynamic change".

Similarly, RIM has needed to respond to rapidly reduced product lifecycles; the result of a shift in market– from previously being predominately enterprise-based, to now much more of a consumer-driven product range. This change in the dynamics of markets has led to what had been a dramatic reduction in product lifecycle. This has resulted in a huge drive for collaboration and information across the demand-supply engine; not simply for ramping up and down production but, significantly, to maintain control of the entire ecosystem for bringing new products to market.

In line with this report's aggregate findings, information and connectivity is a major priority for RIM. "Not just internally but across the entire network of partners", contends Jim. Creating that connectivity has been a traditional barrier to collaboration industry-wide. In response, the company has worked with its partners to create platforms to enable better information-sharing. "And it starts from the early new product introduction processes all the way to end of life", Jim continues. "Keeping connected with your partners throughout that entire journey will be key to success here".

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Barriers to collaboration

For such an obviously appealing practice, one might expect all trading partners to scramble to put collaboration in place. However, this is not so. Supplier failure consistently tops the list of worries identified in surveys on supply chain risk. SCM World's 2012 Predictions Report also identified demand volatility as the top pressure facing supply chains this year. Clearly not all trading partner relationships are as collaborative as we would like. Much of the discussion around collaboration traditionally focuses on the importance of relationships and the role of trust. At the same time, visibility is a concept central to the idea of establishing such a relationship. If these ingredients are so obvious, why is the practice still slow to take root?

Trust and governance: Not the main problem

Contrary to popular belief, figure 5 reveals that the problem is not trust. Outside of a marginally robust agreement that trading partners do not share the same goals (43% overall believe this is so, while 30% disagree), other key trust issues seem not to resonate. Price extortion was one of the chief concerns from the early 2000s when reverse auctions by Ariba and CommerceOne made suppliers worry that they would be muscled by customers in future dealing. The data shows that only 31% of respondents see any validity to this concern. In fact, more respondents dismissed this barrier to collaboration than even considered it neutral. Gaming of either price or volumes appears not to be a major problem – see figure 5.

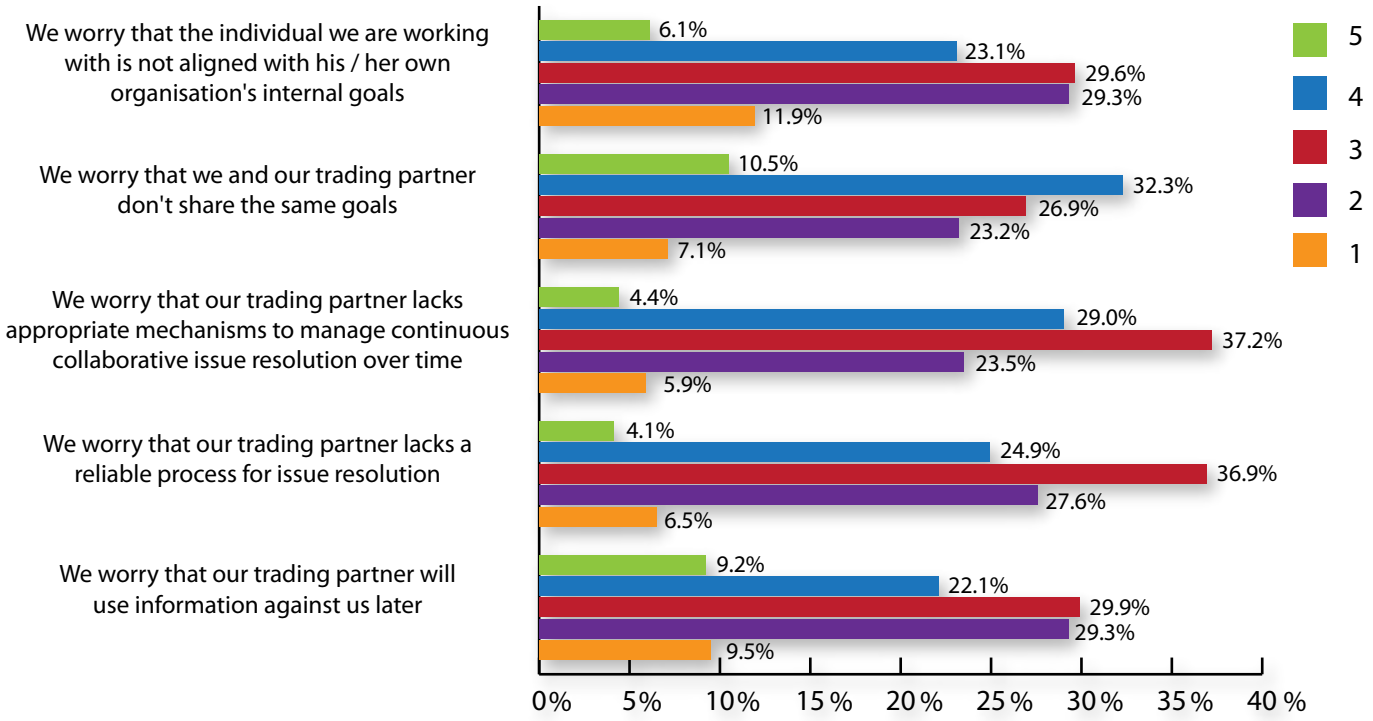


Fig.5 – Barriers to collaboration: trust and governance.
(Rank on a scale of one to five where one is disagreement and five is complete agreement)

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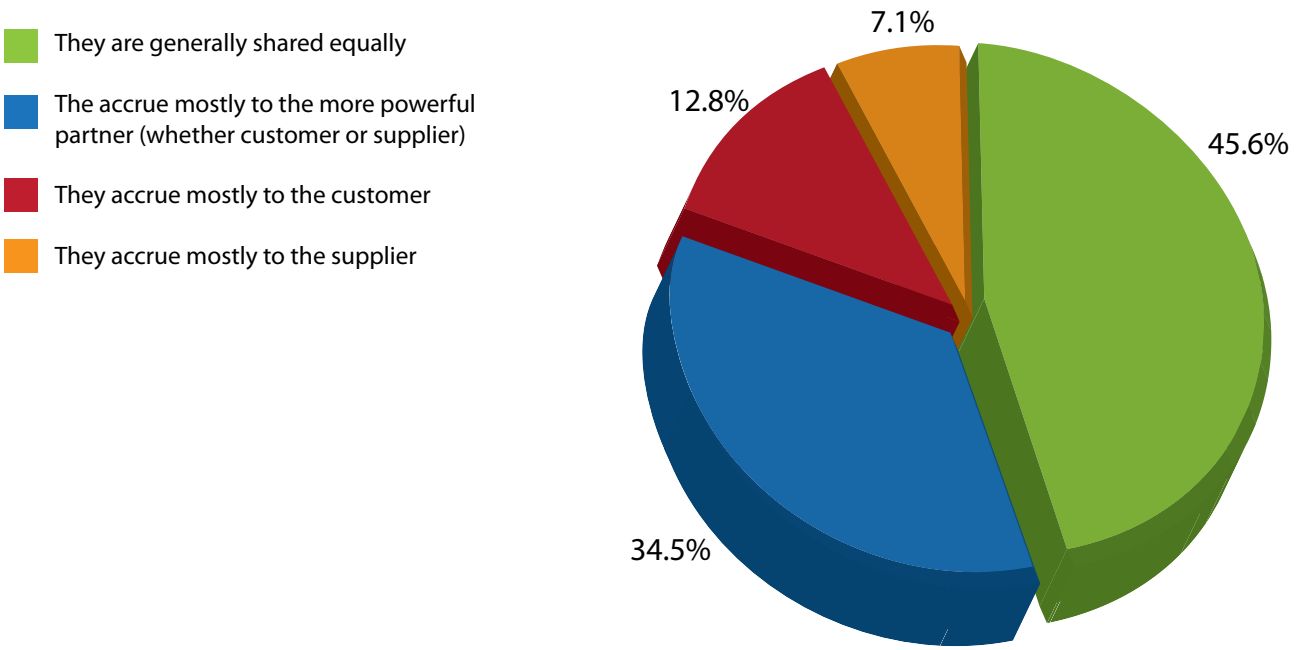
"...data suggests a degree of stability in expectations about how to collaborate in supply chain operations."

Also a non-issue was the question of whether trading partners lack reliable processes for issue resolution. The data, both in aggregate and across industries, shows ambivalence about this potential barrier suggesting few see a meaningful hurdle in trading partners' internal governance mechanisms. The same finding holds for the data when cut by company size. Companies with annual sales of above US $10bn have no different an answer profile from companies whose sales are less than US $5bn. There is also no concern that internal conflicts of interest pose any problems. In fact, this issue is the most clearly rejected among all barriers to collaboration that we tested, with 41% saying this is not a problem against only 29% who say it is.

These results appear to confirm significant strides in the community-wide understanding of collaboration and its value. Ten years ago it was common to find purchasing managers bent on maximising their purchase price variance even if the factory for which they were purchasing components was awash in inventory. In those early days of B2B collaboration, most of the problems seemed to revolve around internal organisational silos and the absence of rapid and cross-functional problem resolution processes. Now it seems most supply chain professionals see few barriers to collaboration based on either trust or internal governance.

As a testament to the relative maturity of attitudes regarding collaborative relationships, consider the data in figure 6. Respondents were asked to describe how they felt the benefits of collaboration were shared between trading partners and the top answer by a solid margin (46% overall) was that benefits are "generally shared equally". This data suggests a degree of stability in expectations about how to collaborate in supply chain operations since ongoing collaborative execution implies an acceptable return for both parties. The second most common answer, that benefits accrue to the "most powerful partner" (35% overall), might be rational in a world where collaboration was a new or emerging practice. Sustained imbalance in benefits sharing would, one could assume, hinder the development of collaborative practices. Our 374 respondents appear to believe that we have passed this stage.

Fig.6 – How would you describe the sharing of benefits derived from collaboration?



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"More than anything, supply chain professionals want faster problem resolution between trading partners."

Information and connectivity: Rapid resolution wanted…urgently!

If trust is largely a non-issue, then what about mechanics? The problems tested point to execution that is still somewhat early in development. For the most part, on-boarding of trading partners has ceased to be a major challenge. However, quality of information shared still poses some problems. More than anything, supply chain professionals want faster problem resolution between trading partners. It appears we understand the conceptual design of collaborative execution, but still have a ways to go in refining and tuning its performance.

The links are there but the information flow is still muddled

The barriers our respondents identified as significant revolved around the more operational elements of connecting trading partners' information flow and synchronising that information for quick problem solving. At an aggregate level, the data showed a mild agreement that on-boarding new trading partners to the information system was a problem. Over a third saw this issue as valid and nearly 9% saw it as a major problem. However, plenty felt this was not valid, suggesting that electronic supplier connectivity is far beyond the early stages of deployment across industry. High-tech in particular is past the experimental stage, with 12% rejecting this concern completely.

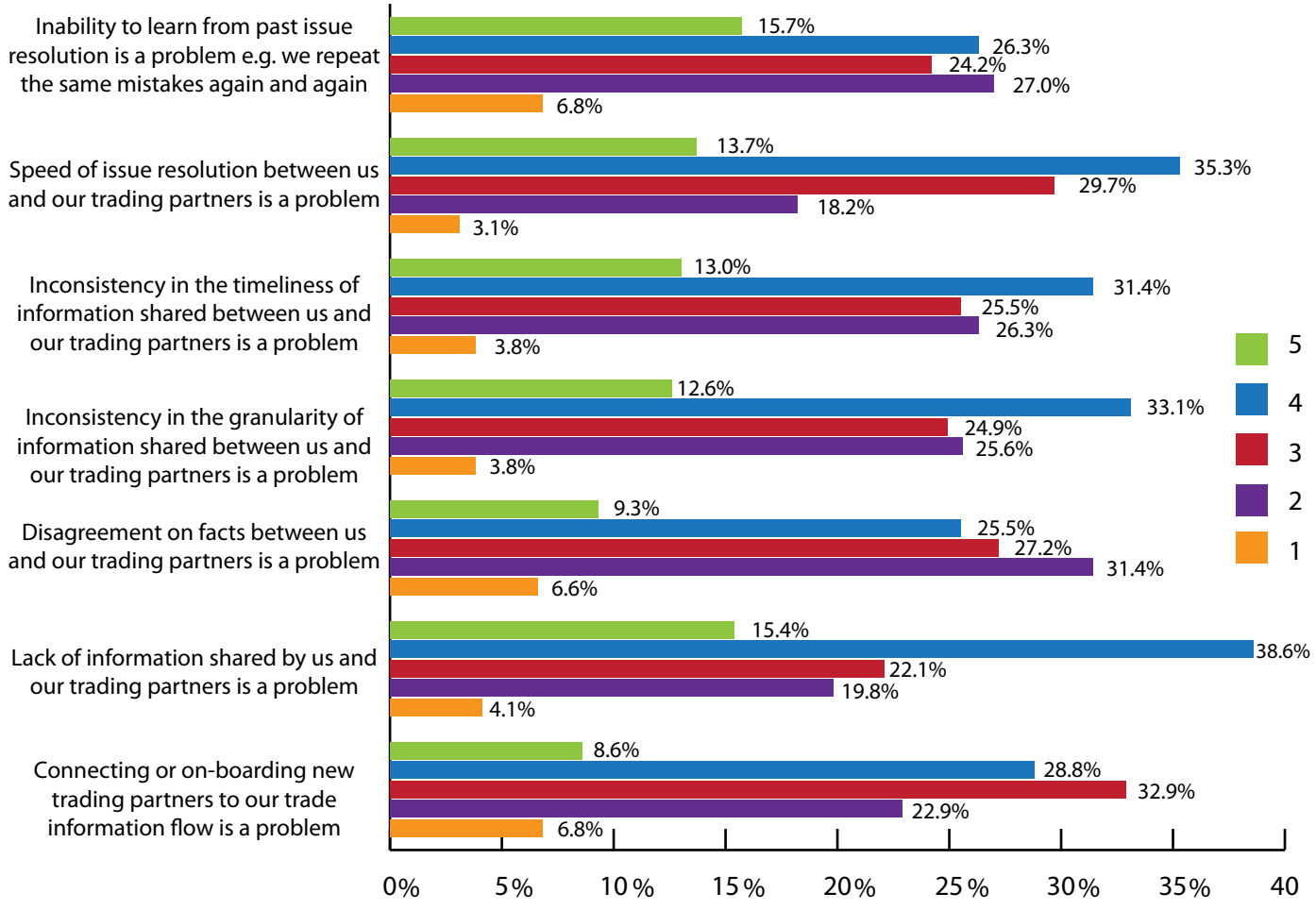


Fig.7 – Barriers to collaboration: information and connectivity.
(Rank on a scale of one to five where one is disagreement and five is complete agreement)

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"More than half of respondents agree that lack of shared information is a problem."

Far more problematic is the flow and quality of information transmitted across these links. More than half of respondents agree that lack of shared information is a problem while fewer than a quarter disagree. Only retail bucked this trend, with 44% disagreeing that lack of information was a problem. For most, the issue was clearly significant.

To understand where information flows might be lacking between trading partners, we also asked about the level of granularity and the timeliness of information. Forty-six per cent overall felt that inconsistent granularity of data was a barrier against only 29% who did not. The issue of granularity is particularly important given the increasing anxiety we see in the supply chain community over rising complexity. SCM World's 2012 Predictions Report saw complexity ranked in the top third overall as a pressure on the profession. Increasing SKU counts, ship-to locations and customer-specific requirements add serious complexity which can only be addressed when trying to balance supply and demand with information that uses comparable units of measure. Accurately quoting a forecast or committing a shipment may not be enough if one partner is talking pieces and the other is talking cases.

This problem is significantly more severe in the consumer sector, perhaps reflecting retail's immaturity with demand information sharing. Retail, in marked contrast, felt on balance that inconsistent granularity was a non-issue. None agree at the highest level (five) that this was valid and more rejected it than accepted it (44% vs. 33%). Consumer supply chains appear to be feeding plenty of good data to retailers, who are not returning the favour.

The other problem identified as a barrier was timeliness of information. Forty-four per cent overall saw this as a problem and a fairly high 13% strongly agree that it was a meaningful barrier to collaboration. Consumer respondents had a significantly higher degree of concern over the timeliness of trading partner information than other sectors with 54% identifying it as a barrier. Consumer's primary customer (retail) interestingly felt on balance that timeliness was a non-issue – 56% disagree that this was a barrier against only 44% who felt it was. Across the number of the barriers we investigated, this pattern was repeated with consumer respondents seeing serious barriers but retailers not. It looks as though consumer supply chains are serving their retail customers so well that the retailers are somewhat insulated from the pain.

Collaboration works but it is still too slow

The biggest barrier we identified overall was the speed of problem resolution in trading partner relationships. The total share of respondents who agree that this was a problem was nearly 50% while only one fifth disagree. By more than a ratio of 2:1, supply chain professionals agree that slow issue resolution processes inhibit collaboration (where this is happening in flight with real problems i.e. in a collaborative execution mode, speed is apparently a serious problem). It may also be a systemic problem related to the quality of information flow, both in terms of granularity and timeliness. If data needs to be synchronised and normalised before it can be acted upon then of course delays will mount and potential for errors will increase.

The final barrier tested in this research was the perceived problem of organisational inability to learn from past issue resolution cycles. This problem is essentially a roll up of all the other barriers discussed so far and is a measure of whether collaborative execution can create lasting business value. Aggregate responses to this question show a solid, but not overwhelming agreement that failure to learn is an issue. However, the portion which agree strongly (five on the scale) that this is a problem was the highest for any barrier we investigated. The implication is that a vocal minority out there sees the potential for benefits derived from collaboration but laments the absence of systematic approaches to capturing and institutionalising lessons learned in practice.
The barriers are real but they can be overcome with conscious design of information and process flows between trading partners. The question of why businesses should bother to invest in such systems and processes then arises. Collaboration may be a perennial good but what is it really worth?

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The spotlight on Avon Products



AVON

Neil Hampshire, Vice President, IT – Global Business Units and Global Business Functions, Avon Products

For Avon, collaboration represents how effectively companies work together for an outcome that brings mutual benefit. "Due to the nature of the direct selling business, keeping alignment across the entire value chain is very important to Avon", asserts Neil. "Variability in demand, coupled with the range of products and the different lead times that we have for the portfolio, makes collaboration and alignment with our partners critical".

Most of the benefit that Avon derives from collaborative execution centres on raw material supply. "We are not a traditional consumer goods company", Neil continues. "We do not have any retailer relationship on the customer side. Therefore, the value we capture revolves around supplier collaboration for demand and fulfilment of products, be that raw materials for manufacturing or finished goods". Most of the focus around raw material and components with suppliers has specifically provided detailed, medium-to-long range visibility into Avon's projected needs. "This gives suppliers the opportunity to make commitments against our briefs quickly to identify potential shortages and establish schedule changes to accommodate any such constraints".

Additionally, Avon has furthered supplier innovation through its collaborative practice. Although manufacturing most of its cosmetics portfolio in-house, Avon collaborates with its suppliers across its fashion and home products. "Avon creates a concept and specifications for a product, moves this onto the supplier, who then independently innovates against the brief, providing the necessary specifications". This allows Avon to outsource ideation around the concept, while the supplier can then best leverage its tooling and existing product lines to minimise the cost for Avon. "What we don't want is a prescriptive brief. This model allows us to come up with new ideas and better solutions to supply chain challenges".

When it comes to barriers to effective collaborative execution, trust is not an issue. "Avon is naturally a very relationship-based company, which bodes well for collaborative relationships". Where Avon does experience a challenge is on the cultural aspects. "When suppliers come to us with new ideas, sometimes we are not the best at internalising and applying them within our business model", asserts Neil.

Information and connectivity with partners also remain prime concerns for Avon. "However, an infrastructure needs to be put in place. Avon has worked very well with partners to develop a platform for effective supply-demand collaboration, affording us and our suppliers total visibility across any potential challenges".

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Benefits of collaboration

Many of the webinars shared with SCM World's members over the past few years have included examples of business benefits derived from good trading partner collaboration. In some cases, like KLA Tencor, supplier relationships become deeply collaborative and even sole-sourced as a way to reduce supply base complexity, increase price savings and improve visibility. In other cases, like NXP Semiconductor, better information sharing led not only to lower costs but also much better order accuracy and, perhaps most importantly, dramatic reductions in order lead times.

These cases align with similar stories across industries from consumer goods companies' Collaborative Planning Forecasting and Replenishment (CPFR) initiatives with retail customers to tighten supplier links between tier one auto suppliers like Johnson Controls and their OEM customers such as Toyota. Joint planning across the value chain reduces uncertainty, which lowers inventory buffering requirements while improving perfect order performance.

Clearly there is some expectation that collaboration will lean the overall supply chain and save money. But what other benefits are achievable? For instance, how important is risk mitigation? How about product or process innovation? Above all else, is it true that collaboration accelerates organisational learning? If these gains are also part of the reward for mastering collaborative execution with your trading partners, then businesses who embrace this idea will be able to establish a defensible competitive advantage.

Collaborative execution saves money

In the first question on the benefits of collaboration, respondents were asked whether a "truly collaborative" relationship is more cost effective. The definition of "truly collaborative" was intentionally omitted to ensure that respondents were free to equate collaboration with any and all of the characteristics tested in the first set of questions. The idea was to allow practitioners to apply their own experiences when assessing the benefits of collaboration rather than force a standard set of traits upon them. The result of this first question was resounding confirmation of conventional wisdom. As figure 8 highlights, 55% of all respondents agree at the strongest level (five on the five point scale) that collaborative relationships were more cost effective. This was the highest score among all beneficial traits we tested meaning, first and foremost, supply chain professionals expect to save money through collaboration.

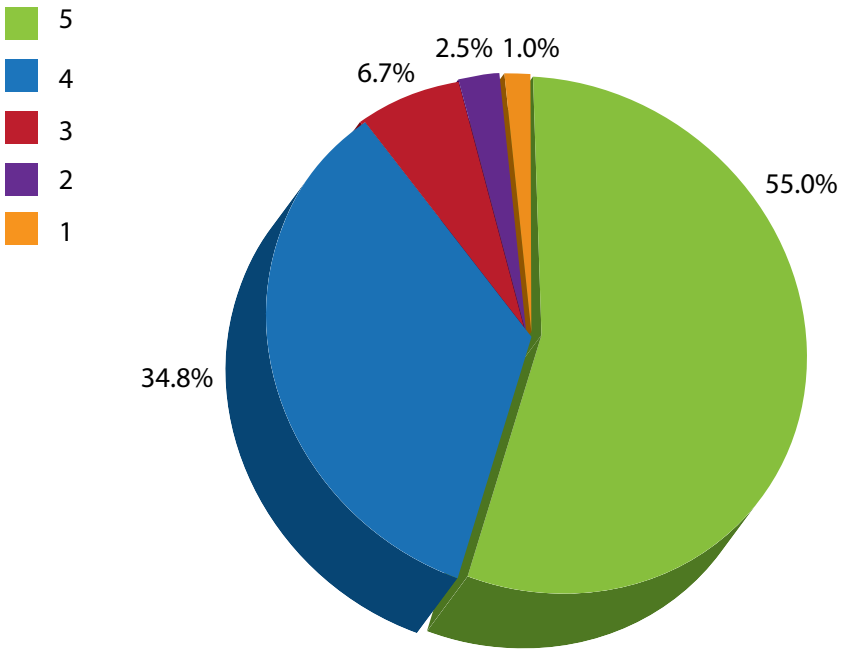


Fig.8 – In a "truly collaborative" trading partner relationship, business is more cost effective.

(Rank on a scale of one to five where one is disagreement and five is complete agreement)

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"It seems the first job of collaboration is to save money."

Cutting this question by industry groups revealed some differences that appear meaningful. Both high-tech and auto/industrial accept the cost advantages of collaboration but with a bit less certainty than others. Consumer and retail were the most decisive on this point with each agreeing that collaborative relationships are more cost effective at the highest level (five) across two-thirds of respondents. It seems the first job of collaboration is to save money.

One of the most tangible ways such trading partner relationships save money is by reducing inventory. Little disagreement with this benefit emerged from the 374 respondents. In aggregate, 80% believe this to be true, which is marginally fewer than the portion which expects costs savings in general. Among industry subgroups, high-tech stands out as the least confident about reduced inventory buffers arising from better collaboration. Nearly a third of all high-tech respondents in fact rejected this idea, suggesting that inventory buffering in this industry may be harder to reduce perhaps due to notoriously short product lifecycles.

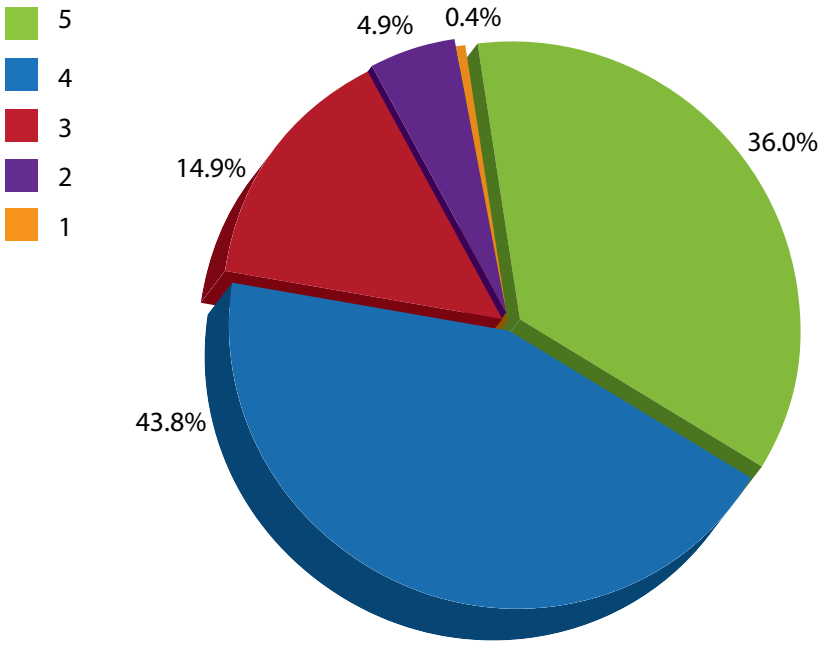


Fig.9 – In a "truly collaborative" trading partner relationship, inventory buffers are reduced.

(Rank on a scale of one to five where one is disagreement and five is complete agreement)

Collaboration may help with risk mitigation and exception handling

We also asked about the role of collaborative trading partner relationships in helping companies move toward a nimbler management by exception mode. The idea being tested here was whether tightly-linked trading relationships allow the supply chain to run on auto-pilot on standard transactions between companies, thus freeing people to concentrate only on problems or exceptions to the standard flow. This principle is especially important when collaboration centres on execution rather than planning. Problem solving in action such as this could be seen as the most effective means of accelerating process learning since routine transactions are, in effect, ignored while special cases are studied closely.

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"Nearly 75% of respondents agree that risk minimisation arises from good collaboration."

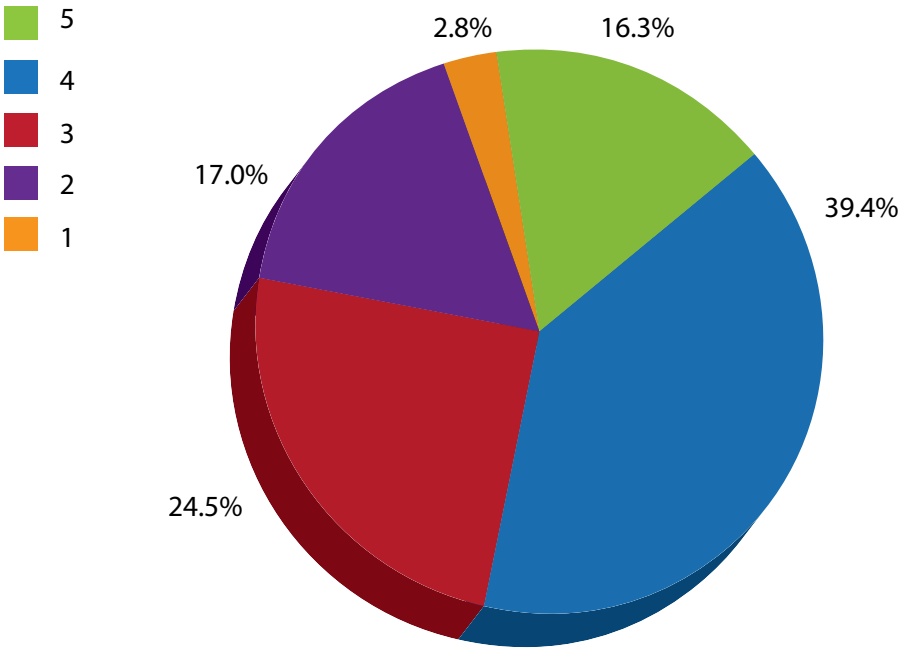


Fig.10 – In a "truly collaborative" trading partner relationship, management by exception is the norm.

(Rank on a scale of one to five where one is disagreement and five is complete agreement)

Here the data shows significant doubt among supply chain professionals. Figure 10 shows that nearly half of all respondents refused to agree at either a four or five level with this premise. Management by exception it seems is still not part of a "truly collaborative" trading partner relationship for a substantial number of companies. This implies that many, even in the presence of everything that constitutes good collaboration, still feel a need to manage every transaction. Retail, in particular, seems to be missing this boat, with a third rejecting management by exception and 22% disagreeing strongly that it is the norm. Retail here and elsewhere in the data appears to have amongst the most immature supply chains in terms of broadly accepted best practices. Management by exception may in fact, like multi-tier visibility, be a capability that few fully understand. Only in supply chains where exceptions can be identified in real time, rather than with occasional batch run computation, is management by exception meaningful. Many supply chains lack this capability today.

Moving toward some of the strategic benefits one might expect of a "truly collaborative" relationship, our data shows fairly strong agreement that risk is minimised in such a supply chain. As figure 11 shows, nearly 75% of respondents agree that risk minimisation arises from good collaboration, reflecting logic that close customer or supplier relationships carry value above and beyond the transaction. With so much disaster-driven supply shortage last year, many companies saw firsthand the value of true partners who were able and willing to help their best customers buffer such shocks. At an industry level, the only meaningful ambivalence we see is amongst high-tech and retail, each of which had a solid third of respondents not agreeing that risk is minimised in a collaborative relationship. Perhaps these results confirm the conventional wisdom that these two sectors are especially volatile from a supply chain risk standpoint.

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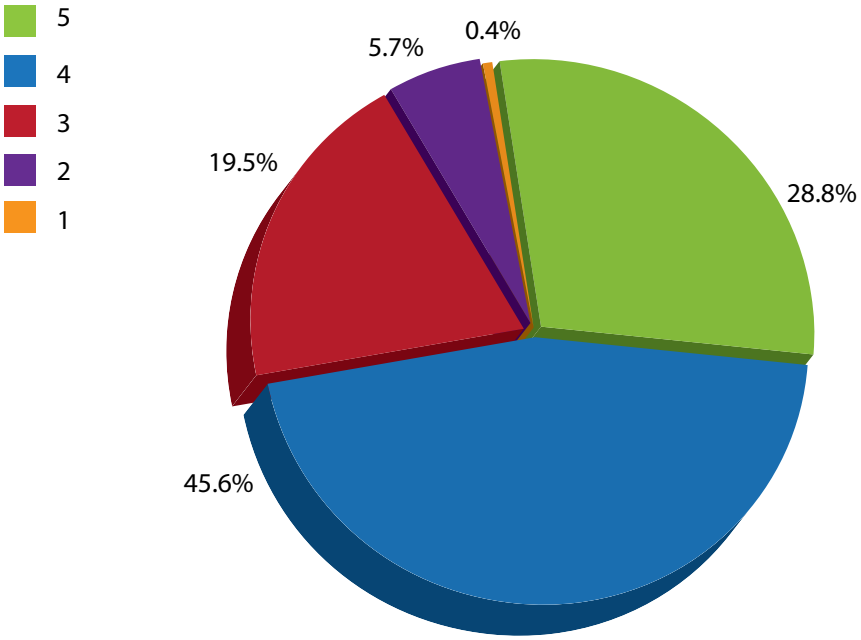


Fig.11 – In a "truly collaborative" trading partner relationship, risk is minimised.

(Rank on a scale of one to five where one is disagreement and five is complete agreement)

Innovation is more effective with a truly collaborative trading partner

After driving out costs and limiting risk, one might expect a truly collaborative relationship to also foster better innovation. Respondents were asked whether they believed good collaboration made experimentation easier and more effective. The goal with this question was to see the extent to which supply chain professionals regard collaborative relationships as important to testing new ideas for either product or process improvements that might generate value downstream. Certain supply chain leaders are known for this, including John Deere and Honda, whose sourcing engineers have delivered design improvements in materials and assembly procedures that save money and improve quality. The concern one might fairly have with such collaboration is potential for loss of advantage if, for instance, the customer shares such knowledge with other suppliers. Certainly such inhibitions will hinder system wide learning across the value chain.

The survey data in response to this question was reasonably clear. In aggregate, figure 12 illustrates that only a quarter strongly agree (level five) with this premise but an additional 57% agree that it was at least valid (level four). Retail was the least likely to accept this benefit of collaboration, suggesting again that their view of supply chain collaboration has less to do with improving the overall performance of the chain than with keeping their shelves full. On balance, innovation is believed to be more effective in collaborative relationships, perhaps partly due to higher levels of trust as well as better information sharing.

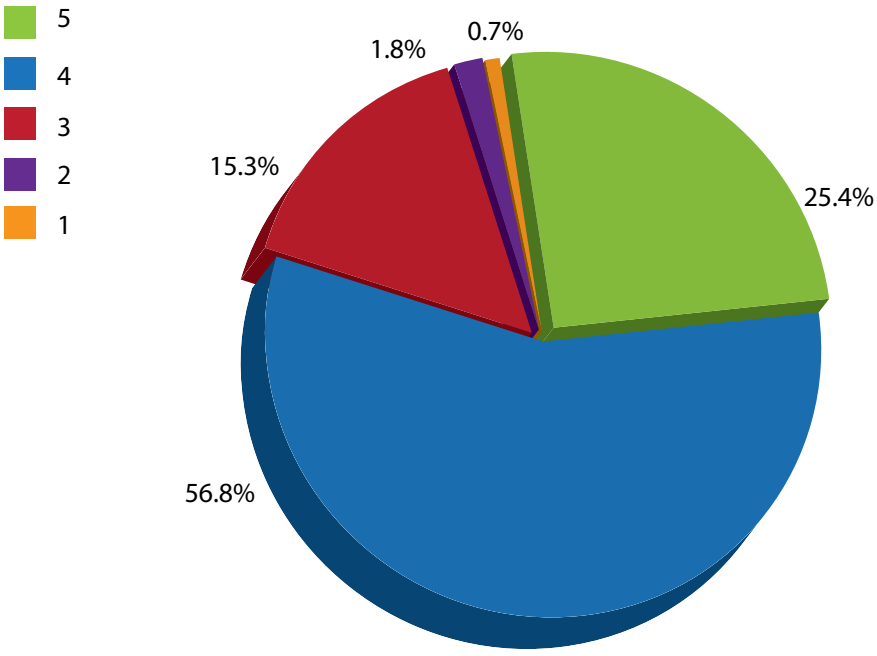


Fig.12 – In a "truly collaborative" trading partner relationship, experimentation (process vs. problem resolution) is easier and more effective.

(Rank on a scale of one to five where one is disagreement and five is complete agreement)

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"92% agree that quick problem resolution was part of good collaboration."

Collaborative execution significantly accelerates problem solving

Having set the stage for a comprehensive view of trading partner collaboration all the way from basic cost control through to joint innovation, respondents were then asked about the speed of problem resolution and overall rate of supply chain process improvement. This final set of questions was intended to tap the collective wisdom of all 374 supply chain professionals surveyed for a quantitative picture of the impact on learning curves. The survey was intentionally opened with definitional questions in order to draw a complete picture of what collaboration comprises. Respondents were then taken through a series of topics around both the barriers to and benefits from collaboration to ensure a robust understanding of how collaboration in execution might connect to systematic process improvement. Finally, estimates of how this discipline affects improvements in the rate of learning were requested.

Recall that our top barrier to collaboration was slow problem resolution between trading partners (see figure 7). When asked the inverse question, the rate of agreement was in fact the highest we saw for any question asked in the survey. In fact, 92% agree that quick problem resolution was part of good collaboration. Clearly this issue hits a nerve. The answers also vary little across industry subgroups suggesting that, even more than saving money, supply chain professionals perceive true collaboration in terms of speed, both of problem solving and, as we'll see later, organisational learning. This finding illustrates the potential strategic value of collaborative execution which, by speeding up process problem resolution, may allow winners to operate inside their competitors' decision cycles.

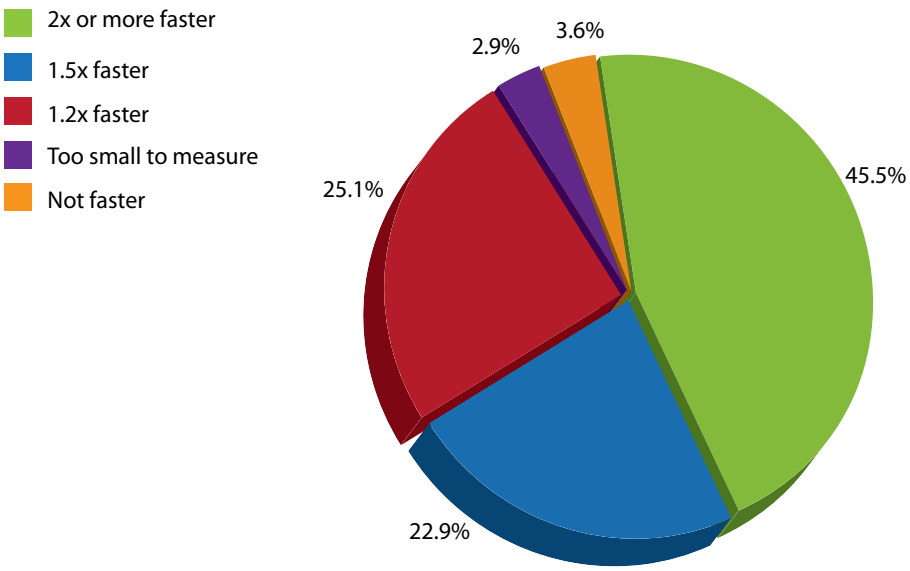


Fig.13 – By what rate are process problems resolved more quickly?

Respondents were asked to quantify how much faster process problems are resolved in a "truly collaborative" relationship. As figure 13 shows, negligible 4% disagree that problem resolution was faster in collaborative relationships but among the overwhelming majority who did believe speed was enhanced, the most common answer was a lot faster – two or more times more quickly in fact. Almost half overall chose this answer while approximately a quarter each felt problems were solved 50% or 20% faster. It appears practitioners see a major cycle time benefit to collaborative execution.

As a basis for accelerating productivity growth, this faster problem resolution offers one essential advantage over slower competitors: more chances to learn. The best collaborative relationships, which include not only trust and solid governance procedures but also high quality, well synchronised information flows, mean more iterations in any given time period. More iteration means more learning.

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"Individual respondents may see collaborative processes differently depending on where they work but all can see the gains in system learning."

Learning curves are 50% steeper with collaboration

The core finding of this research is therefore illustrated in figure 14, which shows how much steeper the learning curve is for those relationships built for collaborative execution. The data shows that while our respondents saw problem solving cycle times dramatically shortened by collaboration, they also saw a substantial increase in the pace of overall organisational learning. The question was carefully phrased to equate learning with the "rate of improvement of relevant organisational metrics" and was presented as a multiple choice selection explicitly tied to quantitative estimates of acceleration of these rates of improvement. By a very clear margin, respondents chose "significantly faster – one and a half times the rate of improvement". Some (18%) went so far as to say the learning curve was twice as steep, while a quarter believed 20% steeper was a more accurate estimate.

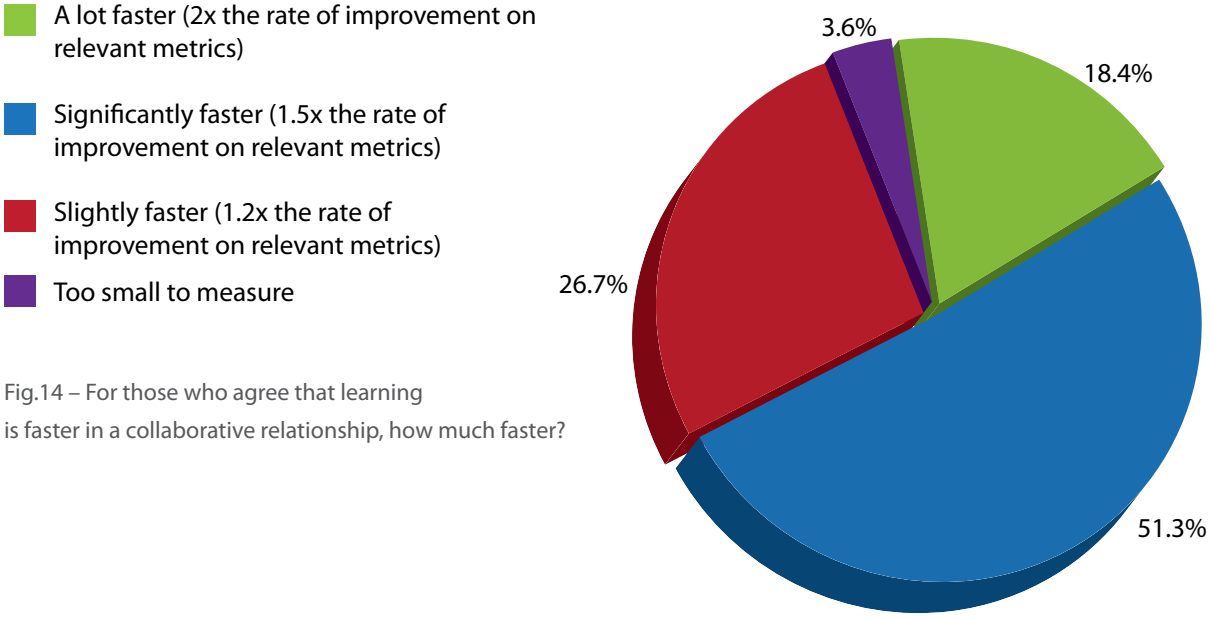


Fig.14 – For those who agree that learning is faster in a collaborative relationship, how much faster?

The data reflects a robust understanding of collaboration's impact on learning. First, it is significant that these same respondents decisively said problem solving processes were twice as fast or better, meaning that they understood clearly the distinction between speed of problem resolution and its resulting impact on overall process metrics. The 374 supply chain professionals can and do separate troubleshooting from productivity enhancement. Second, it is revealing that the answer profile for figure 14 on the acceleration of learning is almost identical across industries and company size segments. Individual respondents may see collaborative processes differently depending on where they work but all can see the gains in system learning.

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The spotlight on Avnet



Gerry Fay,
Chief Global Logistics and Operations Officer, Avnet

At Avnet, supply chain collaboration involves extending a window into trading partners' supply chains and vice versa. "It is vital we have those windows to ensure transparency so we can effectively share information and data around S&OP, supply-demand and so forth", asserts Gerry.

It is with information and data-sharing where Avnet sees most benefit with its collaborative frameworks. "At Avnet, most collaborative value derives from when we are able to understand our customers' customer demand", Gerry continues. "When there is less latency and more real-time visibility, this is where collaboration creates benefit for us. In this sense, transparency across our end-to-end supply chain ecosystem again becomes critical as it enables us to more effectively balance supply and demand".

Another area where collaborative execution creates value for Avnet is across innovation. For Gerry, effective collaboration is a key driver of product development. "It gets the entire network thinking outside the box and sharing best practice, which can facilitate new ideas and drive the innovation process".

For Avnet, the required levels of transparency across the supply chain are not always available, which proves the most challenging obstacle to effective collaboration. According to Gerry, the reasons for this are two-fold. "Sometimes, supply chain partners see information and data as value. Consequently, they are unwilling to share such important data". This certainly aligns well with the findings of this report, which highlight how executives are encountering confusion with information-sharing despite the positive results this can deliver. "Secondly, especially in the electronics industry, where the OEM is the bona fide orchestrator of the ecosystem, conflicting goals can be given across different parties". The result can be that parties within the network become apathetic towards collaborating when faced with such tensions. "There is a definite sense of lack of partnership in such a scenario. OEMs need to make their goals clear and equitable".

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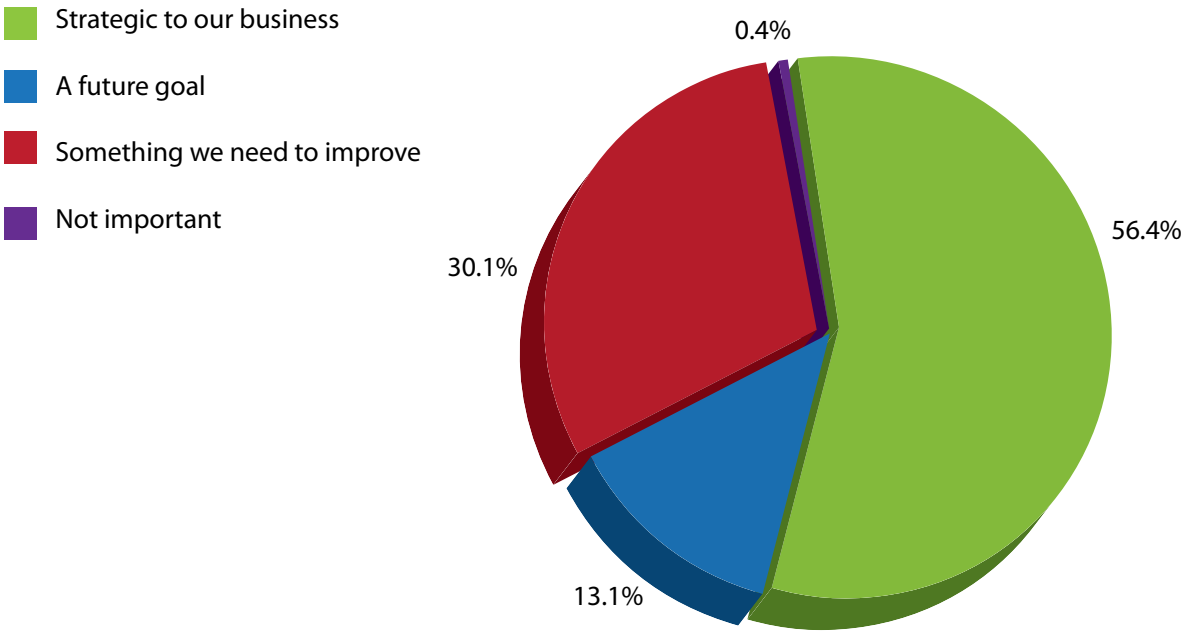
Looking ahead

More will invest in collaboration

As an aid to the day-to-day chores of supply chain management, collaborative execution looks like a winner. Managing what one cannot see necessarily means relying on partners and the processes shared with them to deal with disruptions, whether from the demand or the supply side. However, this research indicates that collaboration offers far more. Supply chains can be leaner with less inventory and lower costs. They can also reduce risk and enhance innovation. Most importantly, supply chain relationships that are truly collaborative will increase the rate of learning enjoyed by the business and therefore should improve rates of return on invested capital.

The data also highlighted that trust and strategic maturity needed to foster good collaborative relationships is largely in place. However where work remains to be done is in the plumbing. Basic connectivity is at least partially established but information flows are not yet clean enough to provide satisfactory speed in problem resolution for most. The path forward suggests many will be investing in better systems to enable more and faster collaboration. Figure 15 below illustrates that over half of all respondents say that collaboration is "strategic to their business", while a further 43% claim either to have it as a future goal or something they need to improve. Only one sole respondent said that collaboration was "not important".

Fig.15 – A "truly collaborative" relationship is:

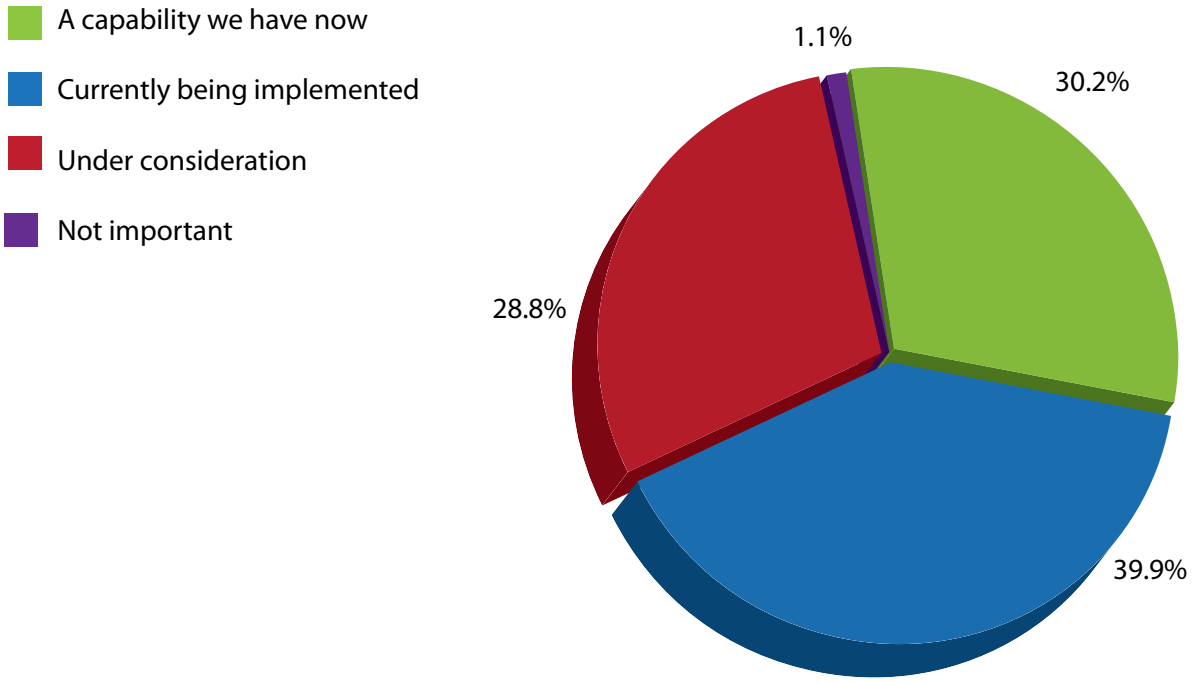


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“Only 1% of all respondents said that integrated planning and execution is ‘not important’.”

One near term move many seem to be looking at is integrated planning and execution. Just under a third claim to have this capability now, while 40% say they are currently implementing it – see figure 16. Only 1% of all respondents said that integrated planning and execution is “not important”. The benefit of tying planning and execution together can be understood in terms of our core research question on the rate of learning. In worst case scenarios, planning as an isolated activity can be an occasional exercise that rapidly loses relevance as real life quickly separates plan from actual. In isolation, execution becomes a permanent fire fighting lifestyle where no one seems to get better despite working harder. Learning by doing seems to lie at the core of what most supply chain professionals want from collaborative execution.

Fig.16 – Integrated planning and execution with “truly collaborative” partners is:



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Conclusion

Collaboration has come a long way from the early days of B2B and online marketplaces. It has also begun to employ far more powerful tools for connecting trading partners and facilitating process improvements in execution rather than just planning. It appears that both the trust needed to embark on truly collaborative trading partner relationships and the organisational maturity to exploit them largely are in place. Where we see a clear opportunity to improve costs, innovation and organisational learning is through better synchronised data flows between trading partners. The benefits of collaborative execution include greater profitability, lower risk and learning curves that are 50% steeper than what is possible otherwise. It seems clear that truly collaborative trading partner relationships are critical to establishing defensible competitive advantage through supply chain strategy.

Recommendations

Look to collaborative execution not only to save costs and reduce inventory, but also to support better value chain performance through experimentation and innovation, risk mitigation and organisational learning across key trading partner relationships.

Name an individual or team tagged to provide dedicated problem solving resources to key trading partner relationships. This resource is vital to accelerate issue resolution and to instantiate lasting process improvement.

Consciously map information flows across trading partner relationships to assure consistency of granularity and timeliness of data. Only with well synchronised data can collaborative execution deliver on its promise of faster productivity gains and better profitability.

For sophisticated supply chain practitioners, consider advanced techniques like management by exception and multi-level visibility as enablers of even deeper organisational learning.

Remember to share benefits fairly with dedicated trading partners. Expectations of this kind of trust-enhancing behaviour are high and investments needed on both sides will only be made where the business can point to financial gain.



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Vice President, Supply Chain EMEA and CIS, Orica Mining

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