

Proven Practices in Supply Chain Analytics & Risk Management

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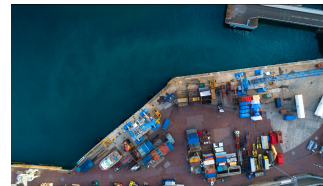
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Agenda

- Recent supply chain risk events
- Characterizing supplier risk... Time To Recover and Time To Survive
- Differentiating public sector from commercial supply chain management priorities
- Integrating supplier risk management within your supply chain management strategy
- Use of analytics to enhance supplier risk management... event detection and prediction
- *Gartner Recommendations*
- *Next Steps*

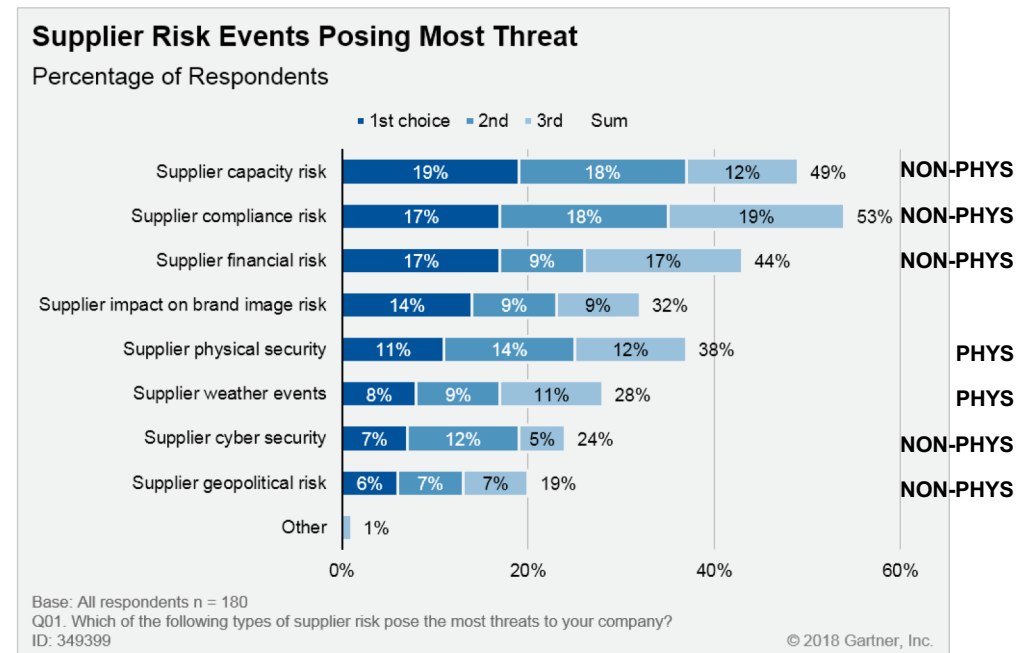
Recent supply chain risk events

- Lead-times for MLCCs (Multi-Layer Coated Capacitors) jumped world-wide due to increased use in autonomous driving systems
- Latent manufacturing defects found in aerospace-grade electrical connectors.
- Manufacturer of business jet engine nacelles declared bankruptcy.
- Trade policy changes have prompted rapid development of alternate sources of supply.



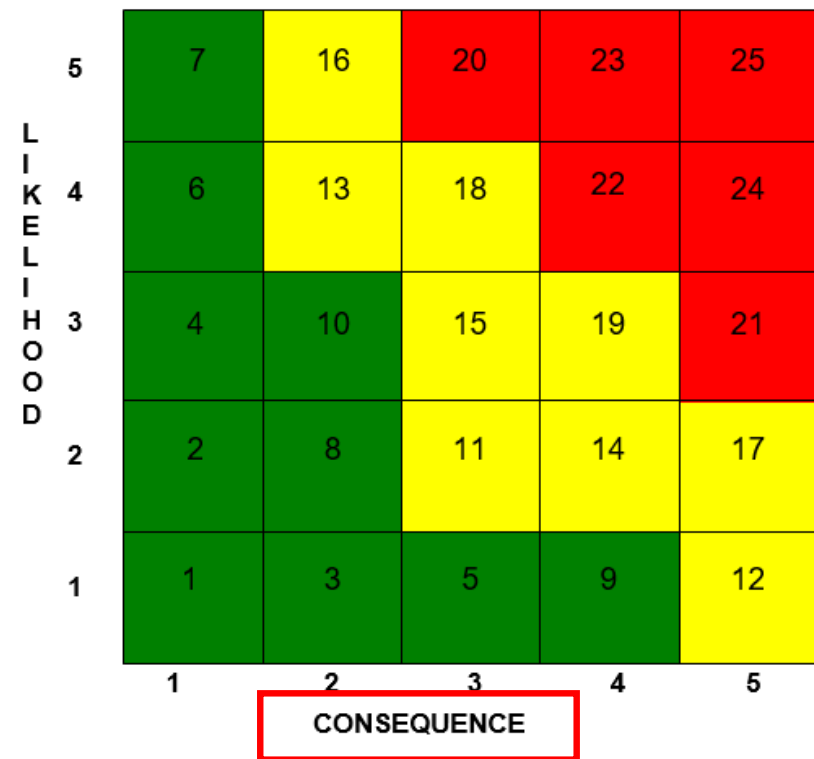
Characterizing supplier risk

- The noted recent events represent the more impactful sources of supplier risk found by Gartner researchers.
- That impact is typically characterized as a negative delta in the Time To Recover (TTR) and Time To Survive (TTS).
- The sources of non-physical risk events are among the most difficult to detect and to mitigate... because TTR is harder to estimate.



Public sector supply chain risk management

- Public and private sector organizations use similar methods to rank risk threat levels.
- An important distinction though is the emphasis on operational or mission impacts over financial outcomes within the private sector.
- That is due to the fact that severe operational or mission impacts are often irreversible consequences...



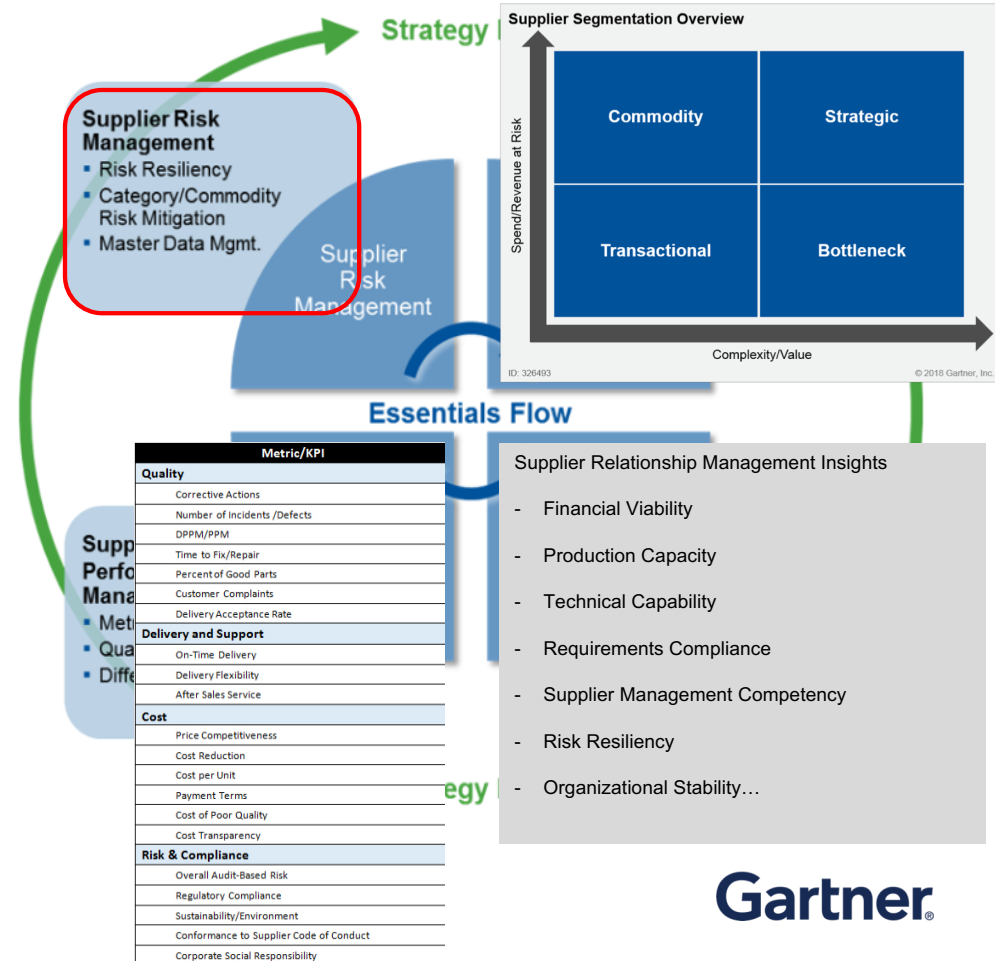
Supplier risk management; key to SCM strategy

- Supplier Risk Management should be an integral element of a customer's overall Source & Procure Strategy:
 - Supplier Segmentation. Strategic & Sole Source Suppliers present the greatest challenges
 - Supplier Relationship Mngmt. The most impactful risks can be hard to detect using external means.
 - Supplier Performance Mngmt. Depending on consequences, Quality metrics outweigh others.
 - Supplier Risk Mngmt. Ideally structured to "minimize the possibility of maximum regret"
- Sound Supplier Risk Management involves People, Process and Tools concurrently.



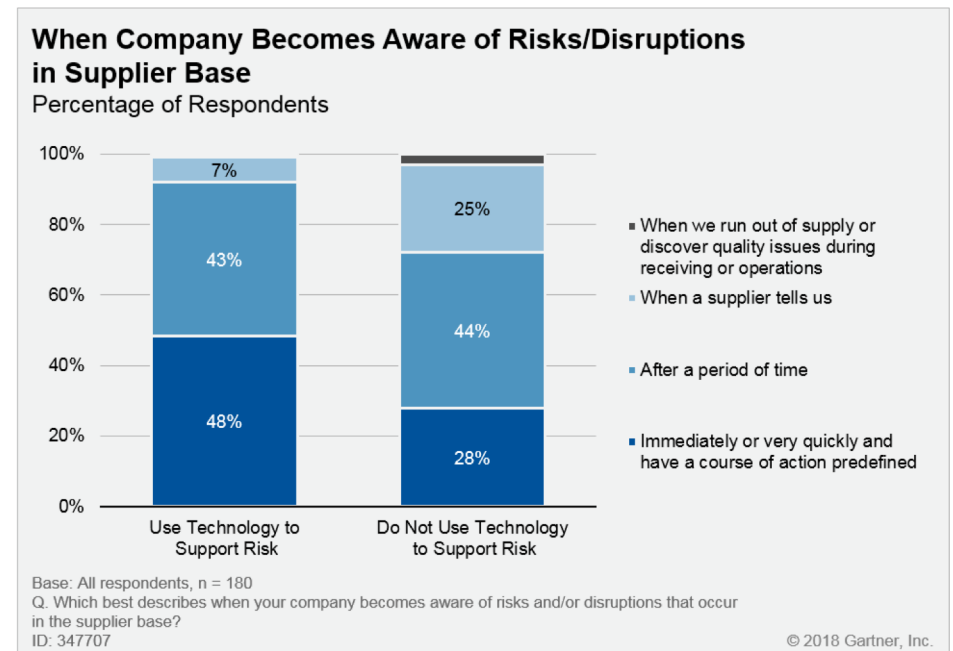
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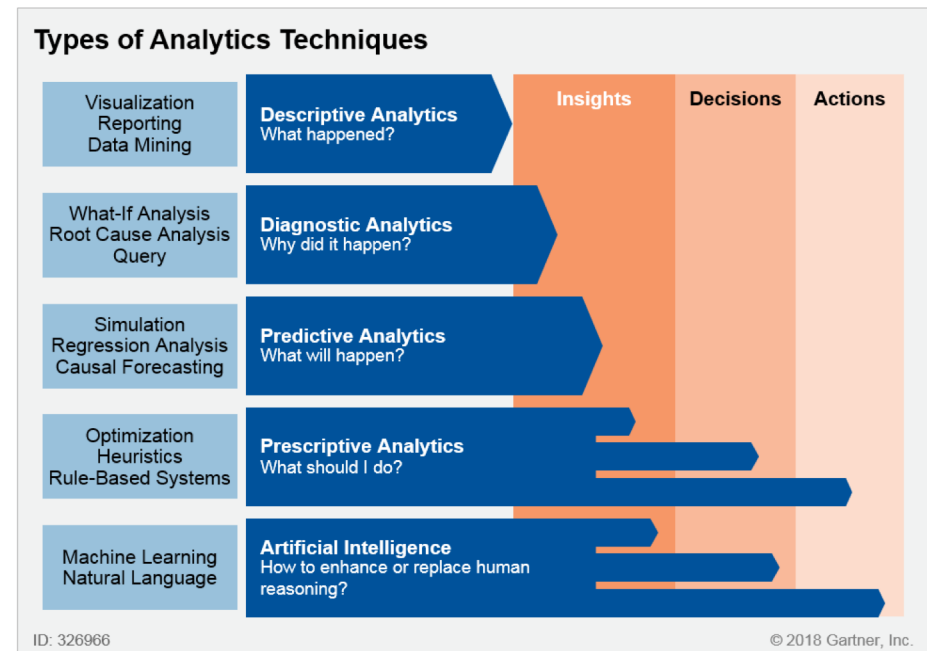
Use of technology to mitigate supplier risk

- A major factor in optimizing the TTR and TTS equation is event detection speed.
- Gartner research has found that effective use of technology can increase the likelihood of learning of risk events immediately or very quickly... and reacting.
- Available analytics technology:
 - Types
 - Categories



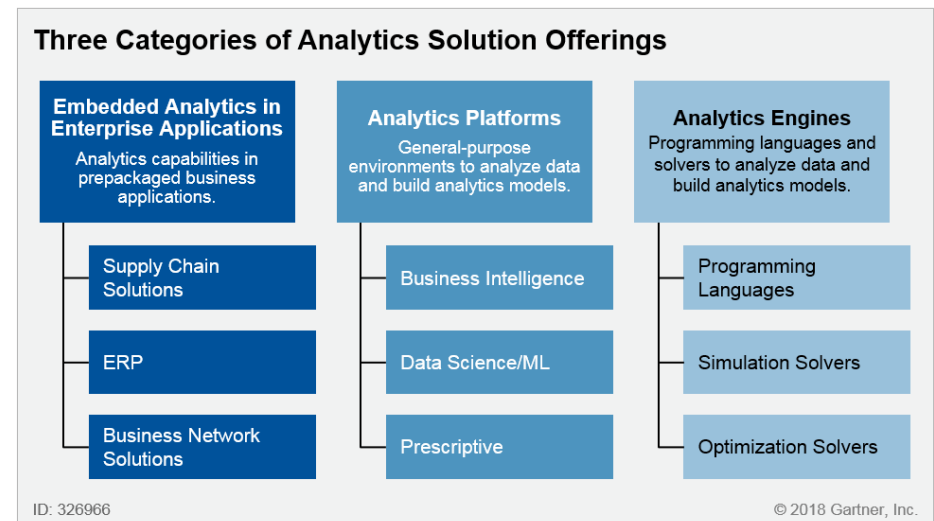
Applying analytics to supplier risk management

- 5 types of analytics available to enhance Supplier Risk Management:
 - Descriptive. “Tail Lights”... moderately valuable as event alerting mechanism.
 - Diagnostic. “Drill Down”... shortens time to identify root cause of event.
 - Predictive. “Head Lights”... provides warning of event likelihood.
 - Prescriptive. “Protocol”... summarizes pre-determined event response options.
 - AI. “Reasoning”... use of human-based input to draw conclusions and anticipate responses.
- Advanced analytics demand more complex data collection methods.



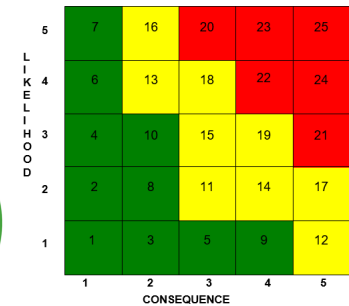
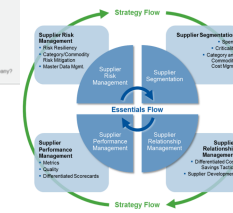
Analytics solutions categories & capabilities

- Embedded analytics:
 - Utilizes internally available data and systems
 - Limited to Descriptive & Diagnostic Analytics
- Commercial analytics platforms:
 - Integrates internal and external data sources
 - Available for Predictive & Prescriptive Analytics
- Custom analytics engines:
 - Exceed “out of the box” analytics capabilities
 - Likely essential for complex modelling



Gartner Recommendations

- Note that the most obvious Supplier Risks are often not the most impactful.
- Carefully weigh operational outcomes where risk event impacts are irreversible.
- Include Supplier Risk Management as part of your overall Supply Chain Strategy
- Evaluate and apply analytics by type and category to reduce mitigate supplier risk



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Market Guide for Supply Chain Analytics Technology, 2018

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Analyst(s): Noha Tohamy

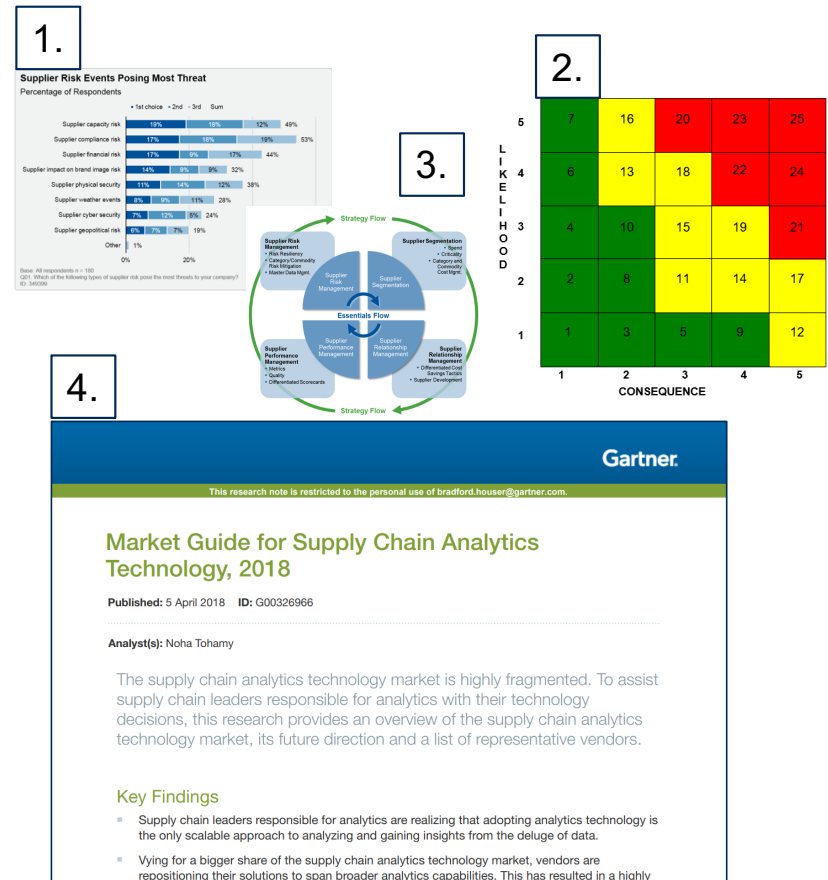
The supply chain analytics technology market is highly fragmented. To assist supply chain leaders responsible for analytics with their technology decisions, this research provides an overview of the supply chain analytics technology market, its future direction and a list of representative vendors.

Key Findings

- Supply chain leaders responsible for analytics are realizing that adopting analytics technology is the only scalable approach to analyzing and gaining insights from the deluge of data.
- Vying for a bigger share of the supply chain analytics technology market, vendors are repositioning their solutions to span broader analytics capabilities. This has resulted in a highly

Next Steps

1. Assess your Supplier Risk Portfolio for presence of non-physical and physical events
2. Consider whether your weighting of risk event consequences sufficiently accounts for irreversible operational impacts
3. Ensure that people, processes and tools are aligned to integrate Supplier Risk Mngmt into your overall Supplier Mngmt Strategy.
4. Conduct a gap analysis to determine where analytics could enhance your Supply Chain Management capabilities.





Thank you