GLOBAL TRADE MANAGEMENT: THE PAST, PRESENT AND FUTURE

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Global Trade Management (GTM) has evolved from a collection of standalone supply chain and enterprise applications into an integrated solution 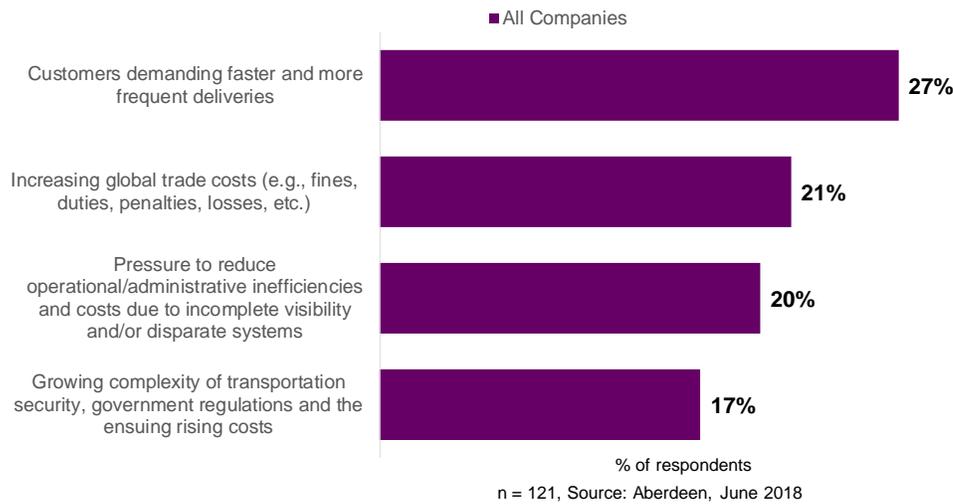that ties them all together, ideally on a common platform. Just as supply chains have changed dramatically in the past decade to adapt to new sourcing and production trends, companies that seek to stay on the forefront of GTM and supply chain management are embracing advances that give them an edge over the competition.

Deploying a digital model of the global supply chain provides the opportunity to drive value throughout the entire business.

This report will examine the current status of GTM, how it has evolved from the past into today's integrated approach, and what the future looks like for GTM and digital solutions such as blockchain.

Business and Market Pressures Facing All Companies in Global Trade

The pressures facing all companies are similar across their global supply chain organizations and reducing supply chain cost is always near the top of the list, as shown in Figure 1. However, the empowered customer is steering the ship, with demands on what, when, where, and how they receive the product. This puts tremendous pressure on global supply chains to speed up their processes while minimizing inventories. The impact is not only on retailers, but also manufacturers and distributors who must support their channel partners with direct-to-customer shipments.

As a result of these customer pressures, process inefficiencies are high on the list for improvement at all levels in order to improve global supply chain responsiveness.

In the age of terrorist threats, security and regulatory issues are also a big factor in supply chain strategy, and the defensive measures that companies must have in place to protect themselves, contributing to incremental costs as well.

Figure 1: Global Supply Chain Business Pressures

■ All Companies

Customers demanding faster and more frequent deliveries	27%
Increasing global trade costs (e.g., fines, duties, penalties, losses, etc.)	21%
Pressure to reduce operational/administrative inefficiencies and costs due to incomplete visibility and/or disparate systems	20%
Growing complexity of transportation security, government regulations and the ensuing rising costs	17%

% of respondents
n = 121, Source: Aberdeen, June 2018

Based on pressures global chain organizations are facing today, we now look at how global trade management practices have evolved from the past to take on today's challenges.

Global Trade Management: The Past

Global trade management functions of the past could be characterized as silos of information with little integration and collaboration across their organization. Many of these processes were manual, with limited, if any, automation, which made integration difficult to achieve across multiple departments and locations. These conditions fostered islands of expertise that were seldom shared across organizations due to system limitations, even if the intent existed, simply due to manual process shortcomings.

Where in-house expertise did not exist due to resource restrictions or one-off scenarios, many functions were outsourced to 3rd parties to manage and execute, which did little to improve in-house capabilities. This often created more "black holes," or silos of information with little visibility beyond the immediate transaction.

Homegrown systems were established by early adopters attempting to streamline and automate their processes to shrink the process time and eliminate error prone manual operations. These early systems were

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expanded as requirements increased and before commercial best-of-breed solutions became available. The organizational infrastructure to support global trade management and execution were built around these early system capabilities. For smaller organizations with limited IT resources, outsourcing was the only viable option to keep pace.

Manual and semi-automated processes may have been sufficient to survive in the past, but the ever-increasing speed of business is driving innovation due to customer mandates and rapid changes in global trade and regulatory policies. This pressure to accelerate has pushed companies to move beyond their silos and home-grown systems, and break out of their past practices to keep pace.

Organizational Challenges from the Past

As Figure 2 shows, the challenges of the past still linger for many companies; even those who have made tremendous strides, may still find pockets of inefficiencies.

Figure 2: The Past Still Lingers for Some Companies

■ All Companies

Challenge	%
Manual processes becoming too cumbersome	28%
Difficult to access up-to-date information on trade regulations (e.g., classification, controls, duties, denied party lists, etc.)	28%
Difficult to share regulatory knowledge throughout all employees and among various locations in various countries	23%
Poor communication among internal stakeholders	12%
Poor communication with external stakeholders (e.g., suppliers, customers, brokers, forwarders, customs and other government agencies, etc.)	12%

% of respondents
n = #, Source: Aberdeen, Month Year

Twenty Eight percent of companies still have manual processes that they recognize are too cumbersome, and they need to take the steps to advance. Manual processes won't survive going forward, and / or will be a point of failure if not eliminated.

Difficulty in accessing up to date information on trade regulations such as classification, duties, denied parties lists, etc., are symptomatic of an

The Aberdeen maturity class framework is comprised of three groups of survey respondents. This data is used to determine overall company performance. Classified by their self-reported performance across several key metrics, each respondent falls into one of three categories:

► Best-in-Class: Top 20% of respondents based on performance

► Industry Average: Middle 50% of respondents based on performance

► Laggard: Bottom 30% of respondents based on performance

Sometimes we refer to a fourth category, All Others, which combines Industry Average and Laggard organizations.

antiquated system or even manual systems. At a minimum, partnering with a third party should provide ready access to information. Ideally, updating their systems with a best-of breed solution that is currently available would solve the issue.

Problems with sharing knowledge across an organization with all employees in all locations, points to a lack of data centralization for the organization. Even if there are siloed operations, a central repository will help, because it is likely that all locations would have some knowledge deficits. If it's dependent on manual operations, they may be doomed, but if the issue is related to multiple disparate systems, a central repository can help.

This is where a lack of integration and the mindset to do it is still a root cause for poor collaboration, communication and information sharing across multiple entities and locations throughout the company. Disparate systems may exist for good reasons such as acquisition, but failing to tie the systems together breeds poor communication internally and fosters the silos and black holes across an organization. The same is true for external stakeholders, only compounded, because of the integration bridges that must be created with partners on top of the internal integration. The sins of the past still remain at some companies, but certainly less so for Best-in-Class companies (see sidebar for definition).

Systems Limitations
Many Home Grown and/or Outsourced vs. Best-of-Breed Adoption

Homegrown systems were necessary in the early days of GTM, primarily because enterprise product options were not available. Figure 1 shows the current state of home grown usage compared to adoption of best-of-breed solutions.

Figure 3: In-house vs. Best-of-Breed or Partner Solutions
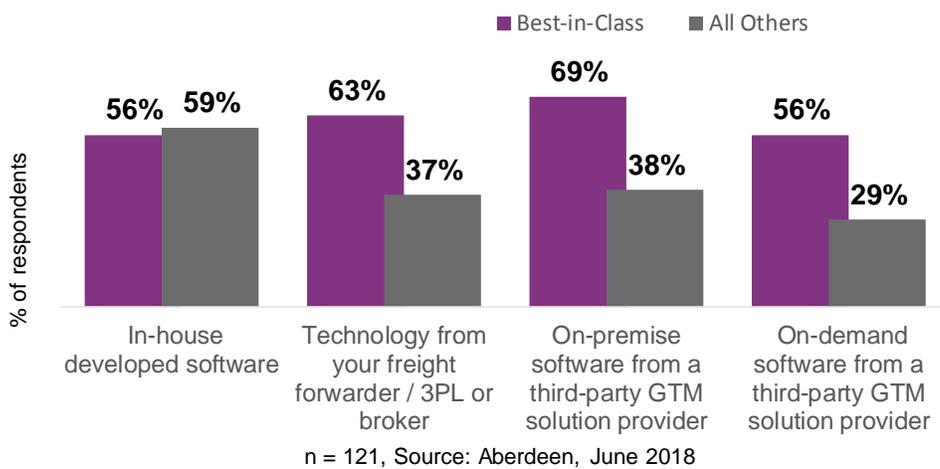
n = 121, Source: Aberdeen, June 2018

However, in-house developed software solutions may even be a deterrent to progress if they are not current with the latest technology because of outdated architecture and integration with other critical systems they must communicate with.

More than 50% of Best-in-Class and All Others still indicate a fairly high level of in-house developed software that remains in place. However, as Figure 3 also indicates, Best-in-Class companies are over 81% more likely than All Others to adopt a best-of-breed GTM solution, either cloud-based on demand, or on-premise, and over 71% more likely to leverage technology from their logistics partners. All Others still appear to be tied to their in-house solutions, which is not in itself an issue, except that their performance on compliance and customer service, along with the capabilities they have in place are significantly behind the Best-in-Class companies, which will be demonstrated in the following sections (see sidebar on page 4 for performance results).

> ▶ **The Present: GTM Single Platform Solutions Drive Improved Execution and Efficiency vs. Inefficient Siloed Operations of the Past**

Global trade management has advanced from the siloed solutions of the past to single platform solutions, which exist today and continue to evolve. Single platform solutions can provide the digital model for sourcing logistics, trade operations and trade compliance with a broad and deep set of capabilities that enable collaboration, automation and analytics

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Figure 4: GTM Key Platform Capabilities

n = 121   Source: Aberdeen, June 2018

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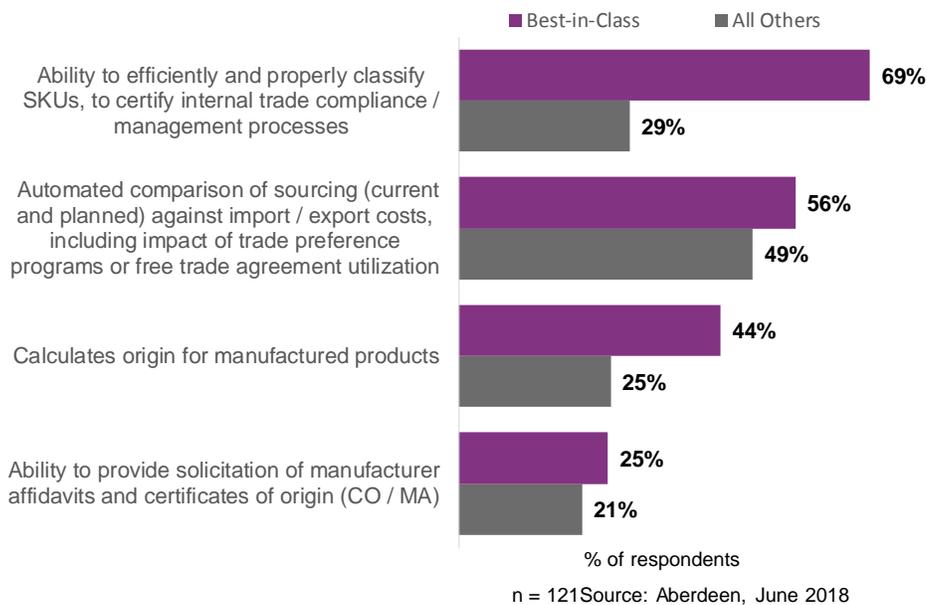
A common platform facilitates the processes for automated comparisons of sourcing decisions for import / export costs, including the impact of trade preferences. It moves the global trade processes upstream into the product design and sourcing functions, where many of the critical decisions are really made on classification, rather than the past practices which began at the point of shipment.
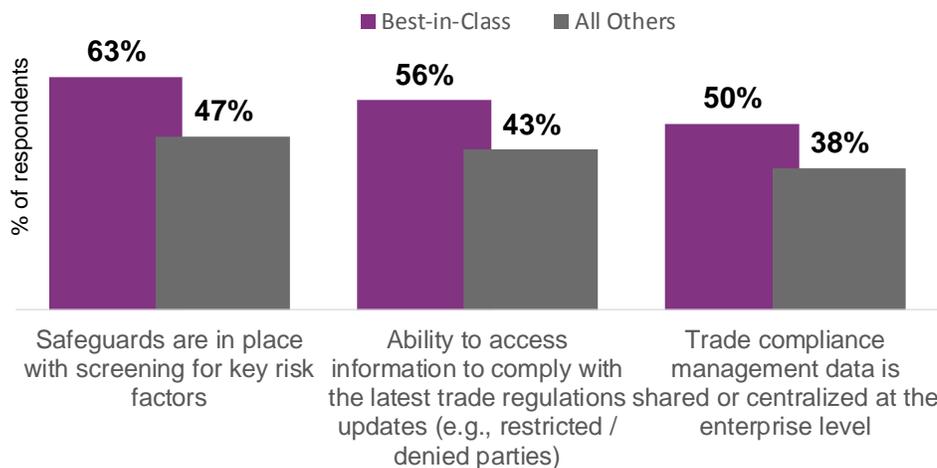
In addition to the automation, analytics capabilities provide the country of origin calculation as part of the one-stop-shop functionality for all cross-border transactions, and solicitations of manufacturer affidavits and certificates of origin become part of the standard workflows.

Global Trade Content: Data Management and Governance Now Table Stakes for a GTM Solution

Figure 5 continues the digital platform discussion in relation to data management capabilities reflecting the Best-in-Class advantages.

Trade compliance management data is shared or centralized at the enterprise level and in a digital platform, master data and transactional data can be leveraged across many applications, via the single platform. Continuous updates and access to the latest information needed for compliance is now standard fare as part of a platform. This includes having the safeguards in place for screening of key risk factors which are constantly updated and part of standard workflows for any evaluation or transaction.

The focus for present day GTM solutions is not solely on trade compliance, but rather leverages that as the starting point to support the product design and sourcing functions as well as logistics and trade operations, in addition to trade compliance.

Figure 5: Data Management and Governance Capabilities

n = 121, Source: Aberdeen, June 2018

The data management and governance that are built into the digital platform along with standardized workflows are enablers for automation

and real-time analytics, which can provide instant visibility across the end-to-end global supply chain.

Vendor and Supplier Enablement: Collaboration and Connectivity

Access to a common data model and global view of suppliers and partners across all countries greatly facilitates partner and supplier enablement capabilities. Figure 6 shows the vendor and supplier enablement capabilities for the Best-in-Class vs. All Others.

Figure 6 : Supplier and Partner Collaboration and Connectivity
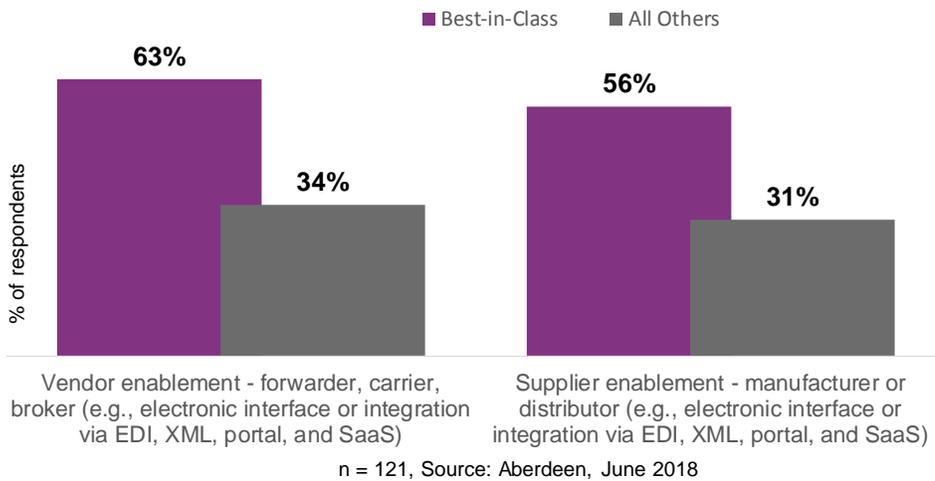
n = 121, Source: Aberdeen, June 2018

"Vendors" in this case refers to all partners and service providers, such as, carriers, 3PLs (freight forwarders, customs brokers, consolidators, etc.), and customs.

A digital platform is the basis for sharing information in real-time and having an exception management process that provides immediate alerts for any out-of-tolerance condition. For workflows beyond the four walls of an organization, this capability is a requirement for timely collaboration with suppliers and trading partners. Supplier collaboration can be elevated to the level of product design and issue resolution, as well as visibility into manufacturing processes, quality issues, and ship dates.

Vendors / partner collaboration is the basis for a strong visibility network at every step of product movement in a global supply chain, for all modes, all countries, and all ports. A digital platform enables workflows that tie shipment and documentation visibility together. One of the often-cited reasons for delays in international logistics, is not having the proper documentation available to support a shipment when it is needed.

In the event of supply disruptions due to international events of any kind, real-time visibility and a communication network with all partners and

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service providers can enable prompt action and avoidance of catastrophic delays.

*Superior International Supply Chain Visibility for Best-in-Class*

Best-in-Class companies have a clear advantage with visibility across all elements in the international supply chain – the key to keeping a plan on track, as shown in Figure 7. Upstream visibility to suppliers and shipments is a critical component of an integrated GTM solution. In the past, visibility was limited to commitment dates from suppliers and updates from brokers on progress, with no real-time visibility. Corrective actions were reactions to missed deliveries or disruptions after the fact.

Today, real-time visibility is essential to the timeliness of data for decision making and keeping plans on track, particularly when customer expectations are for next-day, or even same-day delivery. Organizations cannot wait, as shown by the difference in on-time performance levels between Best-in-Class companies and All Others.

The basic needs for GTM are having online visibility to international orders and supplier status on shipments, in transit visibility once it is shipped, trade document flow to accompany the shipment, and global supply chain events to know if issues exist internationally. External collaboration with partners is essential. Cargo and asset tracking via GPS are becoming commonplace so that shipments in all modes are visible.

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Figure 7: International Supply Chain Visibility Capabilities

% of respondents
n = 121, Source: Aberdeen, January
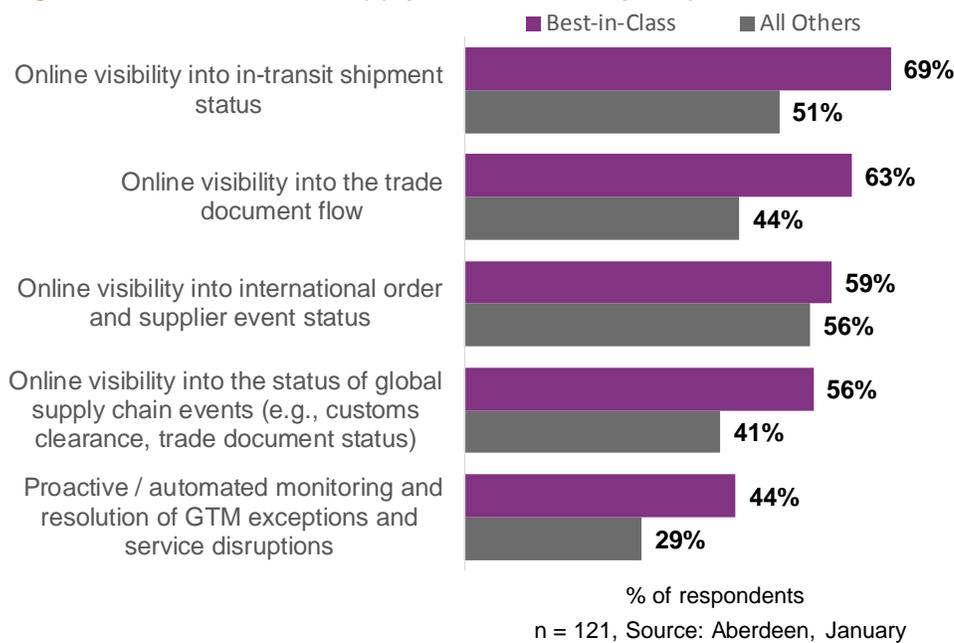
Proactive monitoring, and resolution of issues as needed, should they occur, are necessary to keep shipments moving. A digital platform is a huge enabler for holistic end-to-end visibility, and a basis for an exception management process that can provide real-time alerts to the proper decision makers for prompt resolution.
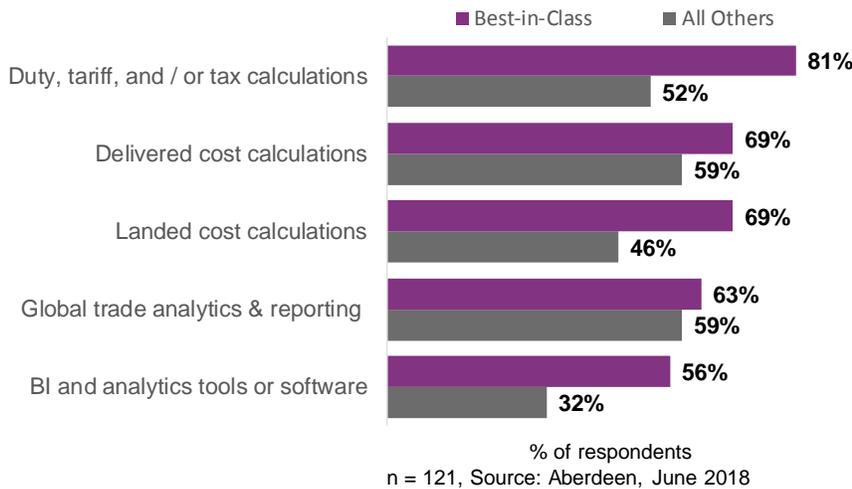
Superior Analytics for Best-in-Class Enabled by Digital Platform

Having the greatest analytics capability in the world doesn't help if it's not integrated with data sources to pull the information on demand – a digital platform is key to resolving that problem. As shown in Figure 8, there is a sizable capability advantage between the Best-in-Class and All Others regarding the ability to perform, duty, tariff, tax and landed cost calculations, highlighting the lack limited access for All Others to basic trade and supplier cost data needed for the calculations.

Best-in-Class companies are also 75% more likely to have BI and analytics tools / software in place as part of digital platform. The analytics capabilities must be in place in addition to the data, or analyses will default to a spreadsheet based operation, which reverts back to the practices of the past; producing information siloes that were not easily shared or communicated across an organization.

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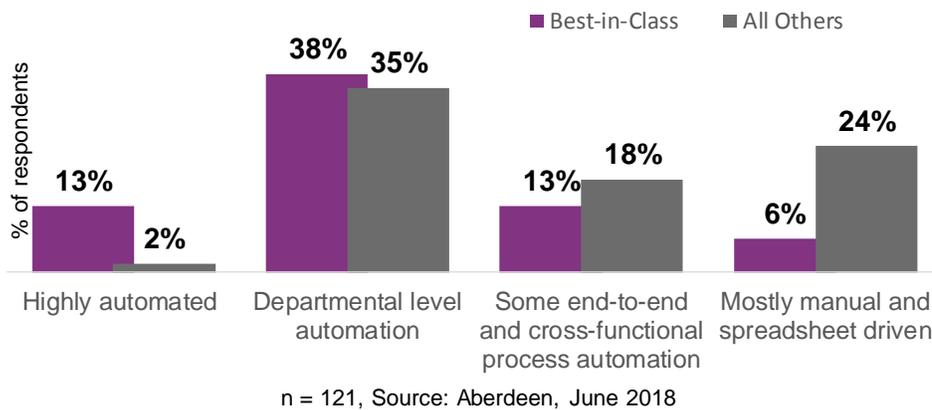
Figure 8: GTM Analytics Capabilities in Place Today

■ Best-in-Class   ■ All Others

Duty, tariff, and / or tax calculations	81% / 52%
Delivered cost calculations	69% / 59%
Landed cost calculations	69% / 46%
Global trade analytics & reporting	63% / 59%
BI and analytics tools or software	56% / 32%

% of respondents
n = 121, Source: Aberdeen, June 2018

Superior Automation for Best-in-Class Enabled by Digital Platform

A single digital platform with a common data model and integrated workflows is a key enabler for process standardization across an enterprise, which leads to a much higher level of automation resulting from the standardization.

Figure 9: Automation Capabilities

Legend: ■ Best-in-Class ■ All Others

- Highly automated: Best-in-Class 13%, All Others 2%
- Departmental level automation: Best-in-Class 38%, All Others 35%
- Some end-to-end and cross-functional process automation: Best-in-Class 13%, All Others 18%
- Mostly manual and spreadsheet driven: Best-in-Class 6%, All Others 24%

Y-axis: % of respondents

n = 121, Source: Aberdeen, June 2018

As Figure 9 indicates, the Best-in-Class are over six times more likely to be *highly automated* across their organization. All companies indicated have some localized automation at the departmental and some cross-functional levels, as shown in the chart. Departmental and local may be a function of continued use of in-house developed software, making the point that this could be where in-house systems can be effective up to a point, but may be a hindrance in taking advantage of a digital platform solution. A call to action is necessary for All Others, 24% of whom indicate they are manual or spreadsheet based.
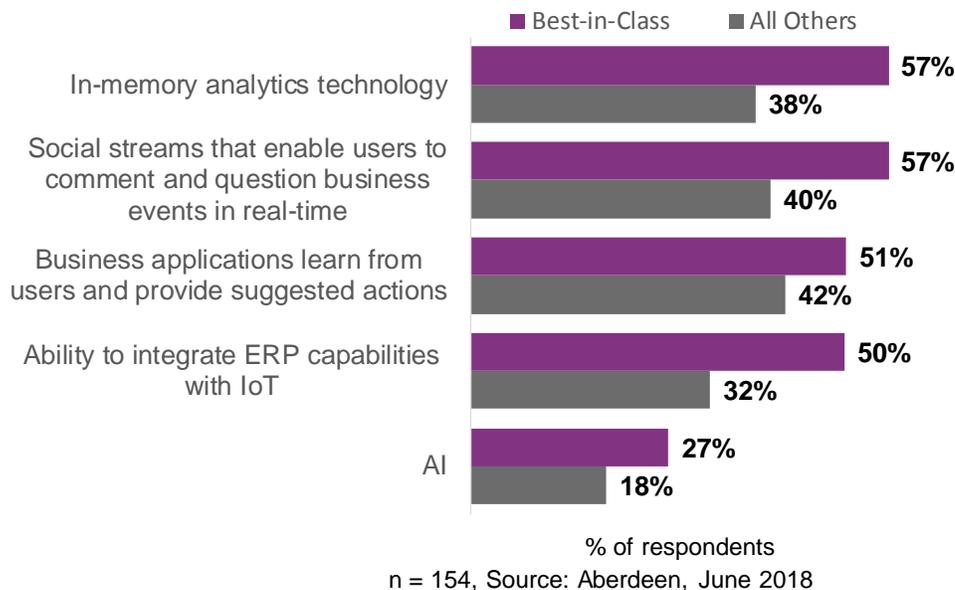
The Future: Digital Platform is the Starting Point for a Transformative Solution

The acceleration of business processes resulting from customer mandates for faster and more unique delivery options, and rapid pace of changes to regulatory and trade policies, along with technology innovation, are driving digital transformation initiatives across many global supply chain organizations. eCommerce demands speed, and we now must consider *same-day-delivery* as well as *next-day-delivery*, which requires available-to-promise (ATP) information to be at the fingertips of global supply chain planners. Because of the empowered customer, all levels in global supply chains are involved in making direct-to-customer shipments. Global supply chain visibility is key. B2B models have converged with B2C, and there are now many B2B2C models that exist. The question becomes: How should companies prepare for the future?

Understanding how and where technology innovation is headed at least provides some direction of what companies must prepare for. Figure 10 provides a view of some of the current technology trends that are already leading toward innovative changes. As a starting point, more than half of the Best-in-Class companies are already adopting these new technologies compared to All Others, who are 42% or lower in their interest. The one exception is artificial intelligence, where the Best-in-

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Class are 50% more likely engaged than All Others, and are currently at 27% adoption.

Figure 10: Transformative Solutions for the Future

Legend: ■ Best-in-Class ■ All Others

Category	Best-in-Class	All Others
In-memory analytics technology	57%	38%
Social streams that enable users to comment and question business events in real-time	57%	40%
Business applications learn from users and provide suggested actions	51%	42%
Ability to integrate ERP capabilities with IoT	50%	32%
AI	27%	18%

% of respondents
n = 154, Source: Aberdeen, June 2018

In-memory analytics allows applications to provide analysis within an application in real-time to minimize hunting for supporting data. When these capabilities are partnered with machine learning capabilities that prioritize options for the user based on their past actions, users can see the expected outcome of their potential options, and analytics become very prescriptive and predictive as a result. Machine learning dramatically improves time to decision and process speed through its recommended actions.

Incorporation of social streams provides intelligence to global supply chain practitioners, keeping them abreast of any potential international events or decisions that might turn into a supply chain disruption. They can also be used to take advantage of favorable conditions that might present opportunities as well.

As a result of its tremendous analytical capacity and algorithms designed to zero in on problems, artificial intelligence (AI) has already demonstrated newer and faster process insights by "connecting the dots" between cause and effect across global supply chains in ways that were not previously feasible.

IoT has already become a key to more automated processes and time-to-execution by machine-to-machine communication within parameters, eliminating unneeded reviews and shortening the process speed from information to execution.

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Blockchain is another promising technology that has potential for speed, transparency, and security for end-to-end supply chain processes. Already, 37% of all companies have funded blockchain initiatives and 29% are actively pursuing the use of blockchain to improve business processes.

Regardless of where the future takes us, having a digital platform is a cornerstone for capitalizing on new technology, because it is digital, as compared to processes that are more manual, paper or image based, that could potentially require further conversions from existing data and processes to even be ready for new technology adoptions. All of the technologies mentioned will play a role in some way, so having a current solution that is based on a digital platform is a good position to start from when integrating, merging with, or adopting any new technology capabilities.

Summary and Key Takeaways

Global Trade Management has evolved from siloed solution components to a common digital platform solution available today. Global trade content is still a primary solution component, but digital platform solutions have moved beyond global trade compliance as the primary goal, to a digital one-stop-shop platform that manages all international sourcing, all cross-border transactions, logistics, and trade operations. With a digital platform as the base, data management and workflows become standardized, leading to superior visibility, analytics and advanced automation capabilities.

Looking forward, the future may be defined by technology advancements that are coming at a rapid clip, such as, ML (machine learning), AI, IoT and blockchain. Having a digital platform already in place enables companies to move more quickly to support any future technology direction as it becomes available.

Best-in-Class companies are well ahead of All Others in their performance and existing capabilities for GTM as well as the adoption of new technology. Aberdeen recommends preparing for the future now by embracing a digital GTM platform, which will create the agility and flexibility needed to adopt any future technologies quickly, while improving existing global supply chain management functions today.

Related Research

Global Trade Technology Adoption: Is Your Organization Ready for the Pending Changes?; May 2017

Aberdeen Supply Chain Visibility Framework: An End-to-End Perspective from Demand Through Execution; December 2017

The New GTM: Connecting Decisions with Downstream Execution; July 2016

Supply Chain Visibility: Know Sooner, Act Now; December 2016

About Aberdeen Group

Since 1988, Aberdeen Group has published research that helps businesses worldwide to improve their performance. Our analysts derive fact-based, vendor-neutral insights from a proprietary analytical framework, which identifies Best-in-Class organizations from primary research conducted with industry practitioners. The resulting research content is used by hundreds of thousands of business professionals to drive smarter decision-making and improve business strategies. Aberdeen Group is headquartered in Waltham, Massachusetts, USA.

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