

SUPPLY CHAIN TECHNOLOGY SPECIAL

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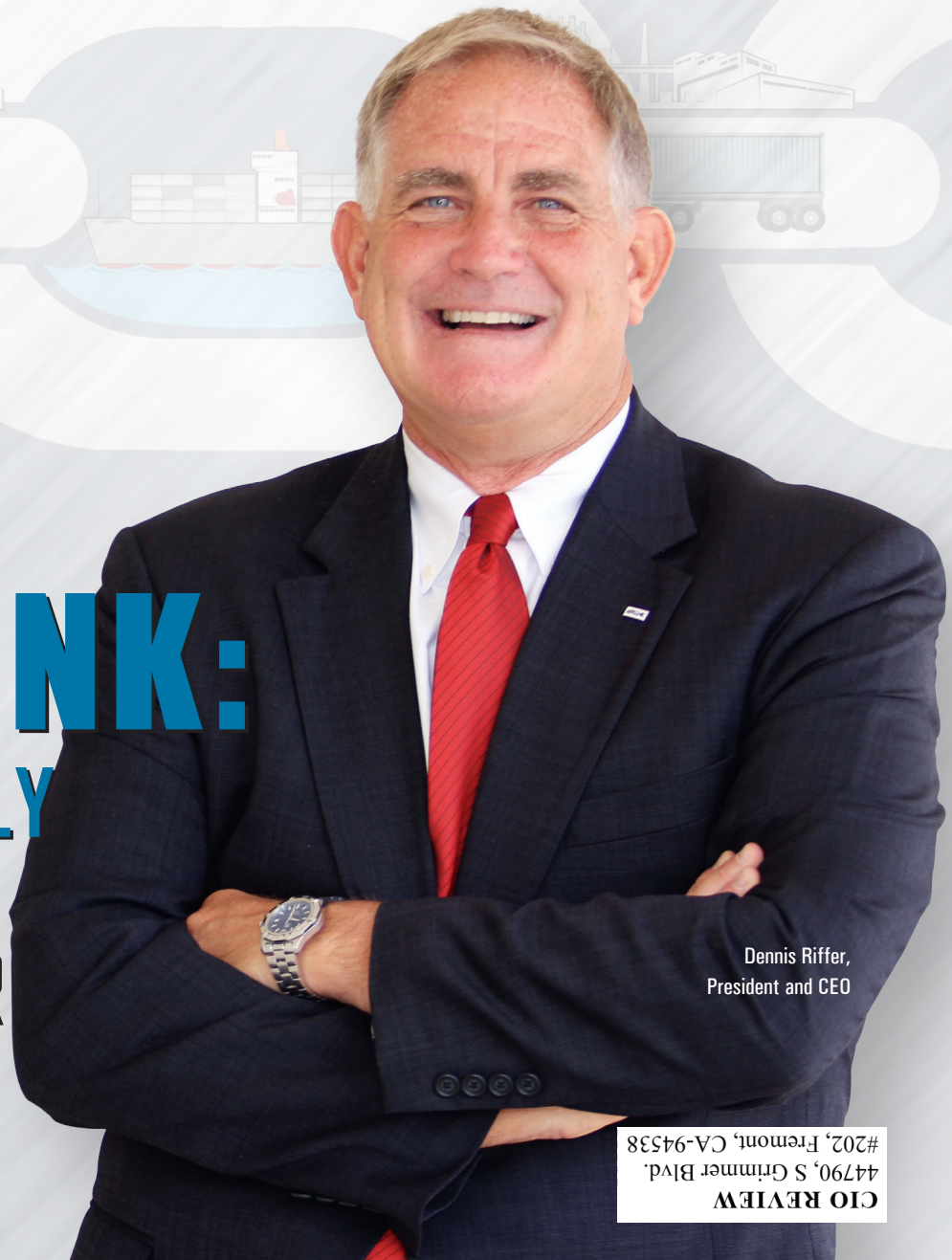
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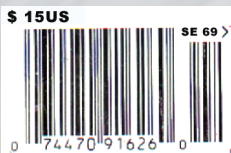
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CIO REVIEW

Big Data: Transforming the Business

By **Matt Goodman**, President-Global Trade Management, Livingston International

There's been much ado about the impact of Big Data and the degree to which corporations and their IT departments are adequately prepared to harvest the full potential of the information they generate on a daily basis.

At the same time, the advent of Big Data has unquestionably and irreversibly transformed the role of business technology managers away from day-to-day infrastructure maintenance and upgrades toward a critical executive function rooted in strategic business planning.

These concurrent trends will become of paramount importance to organizations with global supply chains over the next few years. Here's why:

Trade Agreements

Anyone following the U.S. presidential race will know that the terms of the North American Free Trade Agreement (NAFTA) and the degree to which they're favorable to the United States has been a point of debate and contention. There is a strong possibility that a review of NAFTA may very well take place, regardless of who becomes president. Given the volume of trade that goes on between Canada, the U.S., and Mexico changes to the terms of NAFTA will have a profound impact on the construct of North American supply chains.

As the candidates debate the merits of NAFTA, Britons have already concluded they want out of the European Union and the triggering of Article 50 of the Lisbon Treaty is all but inevitable in 2017. This will set in motion a two-year timetable to renegotiate the UK's terms of trade with the European Union with extensions that could make the full exit extend into the beginning of the next decade.

While the UK looks to loosen its ties with Europe, numerous nations, including the U.S. and Canada are working toward building bridges with the Old World, both through new trading blocs such as the Trans-Pacific Partnership (TPP), which would open trade doors to Asia, the Transatlantic Trade Investment Partnership (TTIP), the US-EU free trade agreement being negotiated, and the Comprehensive Economic and Trade Agreement (CETA), a multilateral treaty to break down trade barriers with European nations. Meanwhile, the massive Regional Comprehensive Economic Partnership (RCEP) is contemplated to join the ten ASEAN countries with China, Japan, India, Korea, Australia, and New Zealand. RCEP may have a big impact on the western hemisphere's access to Asian markets.

The transformation or ratification of these agreements will generate both opportunities and risks for global companies.

Not Just a Money Pit

Traditionally, the money spent on transport, supply chain infrastructure and customs duties have been viewed as inevitable and necessary costs of doing business across geographies. However, CFOs are increasingly looking at supply chains as a means of bolstering the bottom line. To this end, they are putting global supply chains under a microscope, using Big Data to examine them in a more strategic manner and making efforts to optimize the flow of goods across borders as a means of maximizing revenue. Free trade agreements play a pivotal role in these strategies and changes to these FTAs will force CFOs to reevaluate the way their global supply chains operate.

The degree to which global supply chains can be optimized so that the flow of goods takes place in the most cost-effective manner—taking into account not only the cost of



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transport and duties, but also exchange rate fluctuations, potential political and geographic risks, the opportunity costs associated with longer transport times and/or warehousing costs and a bevy of other considerations—can mean hundreds of millions of dollars to high-volume shippers.

The Role of Data Management

To optimize supply chains, global companies have to continually gather, analyze and interpret data and make changes in response. That is no easy feat when one considers the volume of data sources involved—from partner and source-of-origin data to border delay times/instances, compliance-related fees and penalties, not to mention actuarial risk predictions related to any number of volatile variables.



This is where CIOs can provide invaluable support to the broader executive team. For those organizations on the cutting edge of supply chain optimization, internal data gathering and analysis is frequent. The numbers are constantly being evaluated to see where tweaks can be made to minimize costs, reduce risks and maximize opportunities. To this end, in-house IT managers will use sophisticated software to track all the aforementioned data and work with teams of internal supply chain specialists to identify critical changes.

More data will be expected and available by the various customs jurisdictions as they implement “single-windows” to collect data in uniform data sets to support customs requirements

and other agencies concerned with regulating imports. This uniformity is beginning to extend beyond borders as the World Customs Organization (WCO) data model continues to be adopted by more countries and it evolves to handle more and varied kinds of regulatory data. Initiatives like the U.S. Automated Commercial Environment (ACE) and EU Union Customs Code (UCC) are evidence of this.

External Remedies

As much as there are great benefits to careful global trade management, the collection and use of internal data is relatively rare even among more sophisticated global corporations. Far too often the information is gathered but inadequately leveraged, or not gathered at all. This presents executive strategists, including CIOs, with the challenge of navigating the changing trade landscape in an information vacuum.

For those organizations with accrued data, there is an opportunity to work with a third party, not only to analyze data with the aim of identifying risks and opportunities, but to garner counsel on how to get the most out of their global supply chain, with careful consideration of the unique needs of that organization. Similarly, CIOs can work with those third parties to identify gaps in data collection and/or implement the software necessary for future data management where none currently exists. It is essential that this kind of data be collected and analyzed. Trends and anomalies can raise needed questions to bolster compliance and identify opportunities.

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Preparing for the New Normal

Even among more progressive corporations, there is typically a slow response time to significant changes in the trade landscape. That is precisely why CIOs should be considering today the potential impact of changes to or ratification of the trade agreements noted above, even if they don’t have a tangible impact until years from now. Once the changes come into effect, global corporations should already have in place the relevant modifications to internal supply-chain tracking software (where it exists) so that they’re able to nimbly and seamlessly transition their data gathering and continue to monitor the opportunities and risks associated with whatever the “new normal” may be.

The clock is already ticking. 