



GLOBAL KNOWLEDGE BRIEF

Internal Audit in a Post-COVID World

Part 2: Supply Chain



The Institute of
Internal Auditors



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About the Expert

Angelos Binis

Angelos Binis is currently the head of internal audit capability at Frontex. Before this, he was appointed as the governor of the Hellenic National Transparency Authority in September 2019, and in 2015 he worked as a policy analyst at the OECD in the Public Sector Integrity Division focusing on advancing the work on internal control and audit, as well as anti-corruption and anti-fraud. He has been involved in various projects in Europe, Latin America, Asia and the MENA region to establish, review, and implement internal control and anti-fraud frameworks, internal audit policies and tools, as well as public integrity strategies and processes. He has also drafted or contributed in several OECD reports and official publications.

Mark Maraccini

Mark Maraccini is a partner at Crowe Horwath LLP (Crowe) who specializes in regulatory compliance for governmental and not-for-profit entities. He has over 17 years' experience with government, higher education, not-for-profit (NFP) audits, attestation services and other consulting projects. **Over his career**, he has worked with hundreds of governmental entities to complete risk assessments, finding mitigation, compliance audits and audit readiness assessments in accordance with AICPA and Governmental Auditing Standards.

Introduction

A lingering post-COVID challenge

The COVID-19 pandemic that has ravaged the global economy for nearly three years has been a test for organizations in the public and private sector alike. According to a [late 2020 survey](#) by Ernst & Young LLP (EY US), 72% of companies experienced a negative effect on their supply chains, with 57% of them reporting serious disruptions. Even more concerning, of the companies surveyed, only 2% said their supply chains were fully prepared for the pandemic.¹

Even though the worst of the COVID-19 pandemic has largely waned with the creation and distribution of effective vaccines, leading to the subsequent relaxation of many of the most stringent COVID-19 protocols, the global supply chain has arguably proven to be the area most resistant to recovery. Indeed, in certain industries such as automotive — think shortages of critical parts such as semiconductors — disruptions are expected to linger well into 2023 and beyond.

Challenges persist, but the internal audit community now has enough available hindsight to analyze what went right in the responses to the global supply chain crisis, what went wrong, and what actions organizations can take to help address any vulnerabilities the pandemic exposed. Part 2 of this Global Knowledge Brief series, “Internal Audit in a Post-COVID World,” will offer some insight into what such actions might be, and how the role of internal audit in supply chain risk management might evolve.

1. Sean Harapko, “How COVID-19 Impacted Supply Chains and What Comes Next,” EY, February 18, 2021, https://www.ey.com/en_us/supply-chain/how-covid-19-impacted-supply-chains-and-what-comes-next.



The Supply Chain Risk

An overview of a vast risk

A risk in focus?

While the pandemic may have taken many companies around the world by surprise, the risks associated with supply chains did not. In “[OnRisk 2022: A Guide To Understanding, Aligning, and Optimizing Risk](#),” a report published by The IIA that measures alignment among stakeholders in organizational governance (the board, executive management, and chief audit executives or CAEs), supply chain disruption was one of the listed risks that saw close alignment in regards to personal knowledge and organizational capability. Of the stakeholders surveyed, more than half saw supply chain disruption as a highly relevant risk to their organizations (57% of board members, 53% of C-suite members, and 43% of CAEs).²

However, even if the relevance of supply chain risk is widely recognized, how it manifests within individual organizations can vary significantly. Part of what makes the risk so relevant across industries is that it overlaps so many other risk areas. Indeed, cybersecurity; supplier and other third-party relationships; geopolitics; financial risks; volatility in regulatory environments; and environmental, social, and governance (ESG) risks can all contribute to supply chain risk. Elements of all of these can be seen in the supply chain crisis that defined the pandemic for so many businesses.

“Supply chain disruption was very evident when the COVID-19 pandemic began and worsened as it wore on,” said Mike Varney, governance risk compliance partner at Crowe, in an [interview](#) with *Internal Auditor*. “The initial challenges were related to the transportation of goods and labor pressures. [Then], as the world moved through the pandemic, suppliers began rationing raw materials, either because they could not meet production demands or because they did not have access to their raw materials. Due to this scarcity — along with labor pressures from inflationary wage forces and the unavailability of workers [due to layoffs and stringent COVID-related safety protocols] — price increases were seen across the supply chain.”³

Supply chain risk is so vast and interconnected, it can easily lead to an inefficient level of focus from organizational assurance functions, which in turn can impact the communication of the risk to key stakeholders. Such was the case during the height of the COVID-19 pandemic as the supply chain crisis deepened with each passing month, at times reflecting poorly on nearly all organizational departments, including internal audit.

“Organizational objectives of financial growth, customer satisfaction, and an unblemished reputation could not be met as products could not be manufactured as promised, customer interaction was limited, and goods were not delivered on time,” according to “[Are We Speaking the Same Language? An Integrated Approach to Supply Chain Risk Management](#),” a white paper published jointly by the Internal Audit Foundation and Grant Thornton. “Executives began to question the efficacy, efficiency, and value of corporate functions such as risk management, compliance, and internal audit, as they watched the business take a sharp downturn. Leadership in organizations has noted that those functions — and others — did not speak a common language, thus requiring considerable discussion and rework for everyone to get ‘on the same page.’”⁴

2. “OnRisk 2022: A Guide to Understanding, Aligning, and Optimizing Risk,” The IIA, 2021, https://web.theiia.org/cn/atxbg/OnRisk_2022.

3. Mike Varney, Sharon Lindstrom, “Supply Chain Woes,” June 6, 2022, <https://internalauditor.theiia.org/en/articles/2022/june/supply-chain-woes/>.

4. “Are We Speaking the Same Language? An Integrated Approach to Supply Chain Risk Management,” Internal Audit Foundation, Grant Thornton, 2022, <https://www.theiia.org/en/content/research/foundation/2022/an-internal-audit-foundation--grant-thornton-report-are-we-speaking-the-same-language-an-integrated-approach-to-supply-chain-risk-management/>.



A changing, and complicating, regulatory environment

Complicating the picture further were regulatory factors impacting global supply chains during this time. The introduction in the midst of the pandemic of regulations designed to hold organizations accountable for supply chains, in some cases, amplified the challenges. For example, the [Act on Corporate Due Diligence in Supply Chains](#), passed by Germany's Bundestag in June 2021, which will require companies of a certain size (at least 3,000 in January 2023 and 1,000 by January 2024) to be subject to due diligence within their supply chains for the protection of human rights and the environment, is one such action.⁵

"There is a growing cost for regulatory compliance within supply chains in the post-pandemic world," said Angelos Binis, head of internal audit capability at Frontex. For instance, he said, the EU is making great efforts to analyze the root causes of the mass migration of refugees from Syria, Afghanistan, Venezuela, Eritrea, and other countries to Europe in recent years, which has resulted in greater scrutiny to hold supply chains accountable for human rights-related violations. "Such issues are pushing countries to implement policies that compliance functions can use as benchmarks until action from the EU or other such entity is finalized," he said.

With so many individual countries having separate regulatory standards, said Binis, legal functions are required to work with procurement functions and assurance providers to make sure due diligence is done throughout the supply chain to comply with any applicable regulations or laws. "To avoid fines and retain company goodwill," he said, "it can be a delicate balance, especially in a pandemic when resources to invest into compliance-related functions are limited."

Regulatory complications, as significant as they are, pale in comparison to evolving geopolitical risks. The most prominent of these is the conflict in Ukraine, which is having a profound impact on many countries' access to oil and wheat. Looking further out, many are closely watching the rising trade tensions between the U.S. and China. The world's second largest economy is still operating under a "zero-COVID" policy that is bringing many key supplier hubs to a near standstill, and it is increasingly aggressively posturing toward a possible invasion of Taiwan — whose robust chipmaking sector is responsible for as much as [66% of the world's supply of semiconductors](#).⁶

5. "Germany: New Law Obligates Companies to Establish Due Diligence Procedures in Global Supply Chains to Safeguard Human Rights and the Environment," Library of Congress, July 22, 2021, <https://www.loc.gov/item/global-legal-monitor/2021-08-17/germany-new-law-obligates-companies-to-establish-due-diligence-procedures-in-global-supply-chains-to-safeguard-human-rights-and-the-environment/>.

6. Hideaki Ryugen, "Taiwan's Share of Contract Chipmaking to Hit 66% This Year: Report," Nikkei Asia, April 25, 2022, <https://asia.nikkei.com/Business/Tech/Semiconductors/Taiwan-s-share-of-contract-chipmaking-to-hit-66-this-year-report>.



A Place for Internal Audit

Adapting to what the risk landscape demands

A sink or swim environment

The COVID-19 pandemic, for all of its tragedy, was not without its silver linings. From the perspective of organizations, the generational “black swan” event acted as the ultimate “stress test” of their business resiliency plans. And even in areas where these plans were found wanting, the pandemic acted as a prime motivator to prompt rapid, meaningful, ultimately positive change because the stakes were too high to consider otherwise.

The supply chain is one such area. In a [November 2021 survey](#) of senior supply chain executives by McKinsey & Co., 95% of respondents reported that they had formal supply chain risk management processes, an all-time high for the annual survey. Additionally, 92% of senior supply chain executives across industries and geographies said they improved their resilience through physical changes to their supply chain footprints between 2020 and 2021. When this same question was asked in McKinsey’s 2020 survey, just over 75% of respondents said the same, indicating the pandemic pushed organizations to respond to the risk environment — one way or another.⁷

How exactly these organizations responded depended largely on industry, organization size, market demand, the maturity of their supply chain risk management capabilities, and other factors. For example, according to the same McKinsey survey, 60% of respondents in the healthcare industry said they had regionalized their supply chains, while 33% moved production closer to end markets.

By contrast, only 22% of automotive, aerospace, and defense players, who are more reliant on established supplier inventories of parts, components, and semiconductors from critical supplier hubs such as Taiwan and China, had regionalized production. Instead, these companies, as well as companies with little-to-no risk management experience, opted to invest in new software tools, technologies, and data analytics systems for more proactive monitoring of supplier risks. This was particularly effective in improving the visibility of Tier 1 suppliers (which typically provide inventory such as smart components), while improvements still need to be made going forward regarding Tier 2 (chip assemblies) and Tier 3 (semiconductors); 48% of companies surveyed said they had visibility of Tier 1, compared to just 21% for Tier 2 and 2% for Tier 3.

The incorporation of data analytics also opens previously inaccessible opportunities for strategic supply chain planning in the face of unplanned disruptions, said Varney. “Companies can review strategic suppliers to minimize the risk of falling into single-supplier bottlenecks, prioritize incoming purchases to optimize flow, and in certain instances allocate inventory to strategically supply designated regions,” he said.⁸

An agile internal audit role

In a healthier environment, organizations would likely prefer to take a more deliberate, measured approach to implementing such strategies and technologies into their supply chains. The COVID-19 pandemic, however, has not provided such a smooth runway, prompting them to rely instead on the coordination of their various departments to make these transitions as seamless and insulated from risk as possible. As the key assurance provider against risk in the organization, internal audit has played a central role in this movement.

7. “How COVID-19 Is Reshaping Supply Chains,” McKinsey & Company, November 23, 2021, <https://www.mckinsey.com/business-functions/operations/our-insights/how-covid-19-is-reshaping-supply-chains>.

8. Ibid.



To do so, however, internal audit has had to adapt to the “sink or swim” environment just as their organizations have. Often, that means scrapping certain elements of established, longer-term audit plan processes in favor of a more agile, priority-based approach, said Mark Maraccini, public sector internal audit lead partner at Crowe. “You want internal audit to be agile, to be fluid,” he said. “We had to get out of the mindset of creating dense, 60-page audit reports that may be thorough but arrive too late to provide any actual benefit to organizations. Instead, what I would want in leadership is a ‘current state assessment’ where we have this current situation in our supply chains. I want internal audit to say, ‘Here is what we have; here is where we want to pivot or improve; and here are the risks.’ And after the change is made, I would then want to collect data and conduct interviews to understand what has changed, how we’re doing, and how all this impacts our risk mitigation and control structure.”

Adopting such an agile approach is not something to fear, said Varney. It represents an opportunity. “Any new plan or policy represents a potential area for internal audit to provide assurance. For instance, if a company enhances its logistics capacity through a dedicated or private fleet, internal audit can provide perspectives on whether these new processes are designed and operating to deliver on intended objectives — while managing the relevant risk of new processes or partners.”⁹

If these opportunities are missed, Varney added, the consequences for the perceived value of internal audit in the eyes of leaders could be damaged. “Internal audit has to act now, or risk losing relevance to stakeholders,” he said.¹⁰

Internal audit integration

If there has been one lesson to take from the COVID-19 pandemic regarding supply chain resilience against disruption — and one lesson organizations can take to heart moving into a post-COVID world — it is that supply chain management is not restricted to a series of activities and adhered-to protocols. Rather, supply chain management is the result of, as the Internal Audit Foundation and Grant Thornton white paper suggests, “integrated functions and roles that work together toward an objective: achieving supply chain resiliency and performance goals.” In other words, supply chain management is an “ecosystem.”

Internal audit is one such function and with its unique view of risk across the organization, it can provide invaluable support toward achieving shared goals. The Internal Audit Foundation and Grant Thornton white paper created a five-step approach toward organizationwide integration of departments to build supply chain resilience, all of which align with the key tasks of the internal audit function:

1. Identify and define supply chain risks and segment them into risk categories that represent the largest risk exposures to business objectives.
2. Quantify the probability and impact with an eye on interrelationships between risks and failure modes and effect analysis outcomes.
3. Analyze scenarios to test ranges of risk outcomes, develop response plans, and consider control effectiveness.
4. Document the responses and distribute the resulting plans.
5. Regularly revisit the plans, test controls, and refine program life cycle elements, as needed.¹¹

According to the white paper, current organization satisfaction regarding each step varies wildly. For example, while 55% of survey respondents said they were satisfied or very satisfied with their organization’s ability to assess financial risk impacts or prioritize risks, only 36% said the same for their organization’s ability to regularly revisit, test, re-test, and refine plans as needed. Clearly, while progress toward organizationwide integration appears to be positive, there is more to be done — and more internal audit can do in the coming years and beyond.

9. Ibid.

10. Ibid.

11. Ibid.



Conclusion

The impact of looming technologies

While many are eager to speak of COVID-19 in the past tense, it is far from over. In July 2022, for example, more than a year and a half after the introduction of various COVID-19 vaccines, China implemented a [lockdown](#) of nearly one million people in a suburb of Wuhan following the discovery of four new cases.¹² The longer such actions persist, the more it becomes likely that living with COVID-19 will become the “new normal” as it becomes endemic in society.

So it must be for internal audit, as it has always been. The risk environment organizations operate in never ceases evolving, expanding, and becoming more complex. This is not the end, but only the beginning.

While this may sound daunting and imply many more challenges — known and unknown — for internal auditors in the years ahead, the good news is that auditors need not move into the post-COVID world blind and ignorant. Many trends, such as the increasing focus internationally on holding global supply chains more accountable regarding ESG issues such as human rights and environmental sustainability, took root long before COVID-19, and will continue long after.

The global supply chains’ embrace of technology, particularly automation systems and tools, is another trend that predates COVID-19 — although the labor shortages spurred by COVID-19, associated safety protocols, and the subsequent “Great Resignation” seen across many sectors have certainly accelerated the transition.

“A material risk on the horizon that is not garnering as much attention [as it should] is the automation of supply chains,” said Varney. The rise in automation will coincide with a significant increase in cyber risk, while also creating further technology inequalities, which intertwine with income and wealth inequalities, he said. “Long term, this will be the future. Now is a good time to evaluate future investments in automation and analytics to deal with the challenging labor environment, as well as develop focused, scenario-based action plans for business continuity and resiliency in an automated world,” he said.¹³

12 . Yaroslav Lukov, “Covid in China: Million in Lockdown in Wuhan After Four Cases,” July 28, 2022, <https://www.bbc.com/news/world-asia-china-62322484>.

13. Ibid.



About The IIA

The Institute of Internal Auditors (IIA) is the internal audit profession's most widely recognized advocate, educator, and provider of standards, guidance, and certifications. Established in 1941, The IIA today serves more than 215,000 members from more than 170 countries and territories. The association's global headquarters is in Lake Mary, Fla., USA. For more information, visit www.theiia.org.

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