Managing Supply Chain Risks.

An RGP white paper.

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Background

Supply chain disruptions and the associated impact on revenue, profit and reputation constitutes one of the most demanding concerns facing today's firms. The recent natural disasters, financial crises, and changes in political stability have highlighted vulnerabilities both for individual companies, and for entire industries. The risk array is broad and also includes risks such as site disruptions, outsourced service failure and transportation delays and embargos.

The diversity in the risk environment demonstrates the importance of proactively managing and mitigating risk with an integrated supply-chain risk framework.

RGP hosted a Round Table discussion with a group of senior leaders from some of the world's leading organizations to discuss the most prevailing supply chain risks. The forum also explored and exchanged ideas on how these risks could be managed and mitigated.

This whitepaper captures key themes and insights from that forum (supplemented by existing RGP knowledge and client research) for wider circulation amongst supply chain professionals.

EXECUTIVE Summary

Companies are relocating and outsourcing manufacturing and other administrative services in order to increase productivity, improve customer service, and reduce costs. At an early stage in these decisions, the risk assessment needs to include the question of location. Natural disasters are difficult to predict but the probability of a disaster is quite naturally dependent on the *location*.

Effectively mitigating *operational risks* can bring direct value to end customers. With higher quality and delivery reliability, firms can demand a better price. So how do firms secure delivery reliability and business continuity? What if a supplier decides to take an important single-sourced component out of production? High qualitative inventory information such as component databases and contingency plans are vital for reducing risk exposure and recovery time. Many companies use one single source for long term strategic benefits, but source diversification can be a model for diminishing the risk exposure.

Increase in *regulations* can be seen across all sectors. Compliance risks are a complex area and the financial penalties can be significant. To ensure compliance, it is important to have full supply chain visibility and to instantly disclose information about the company's sourcing and supply chain practices.

Integrating *sustainability* considerations into supply chain risk management has become increasingly important. A failure within this area can erode a brand for a significant time with "badwill", and decrease in revenues and profits as a consequence. The environmental and social questions that used to be managed in one function are now discussed cross functionally and are becoming part of a corporate culture. They are no longer treated in a separate audit; they are part of the audit.

As the supply chains extends, so do the *financial risks*. Although financial risks are assessed in the tender process, they are not always part of 'day-to-day' management. Some companies have difficulties evaluating and monitoring their supplier base. The information needed for evaluating financial health is many times difficult to obtain, and if it is available may be dated or difficult to fully synthesize.

With the diversity of interrelated risk areas present, it is critical to adopt an integrated approach to supply chain risk management.

The following pages explore these themes in more detail.

THEME one

The choice of location for a node in a firm's supply chain is a critical decision. Factors to consider range from potential natural disasters to site-specific concerns.

Today companies are relocating and outsourcing manufacturing and other administrative services in order to increase productivity, improve customer service, and reduce costs. At an early stage, the risk assessment part of the business case needs to include the question of *location*. Natural disasters are difficult to predict but there are areas that are more or less exposed.

"Toyota, for instance, lost $1.2 billion in product revenue because of parts shortages resulting from the 2011 Japan earthquake and tsunami; this caused 150,000 less produced cars in the US, as well as a 70 percent reduction in production in India and 50 percent in China" (GAR 2013).

In addition to natural disasters, companies need to consider factors such as geopolitical stability, macroeconomics and site specific risks (e.g. operational and security risks) in the country or region where the goods or services are being sourced. Likewise, in more low-risk areas there are still risks to consider such as the probability of disruption in power, water supply, and telecommunications.

Managing risks in a strategic way can save costs and isn't necessarily expensive. The choice of location is one example. Then you might ask if location really is an open choice? For some companies a specific location might be a business requirement rather than a choice.

To conclude; while weather might be perceived as force majeure an enlightened choice of location can affect the weather indirectly!

THEME two

Recovery risks concern not being able to resume business continuity after an unplanned interruption.

Time-to-recovery is a measure of how quickly a supply chain node can recover and resume full functionality. The preconditions and values vary for different nodes and subset of nodes.

High qualitative inventory information, such as component data bases, and contingency plans, are vital for diminishing the risk exposure and recovery time. What happens if a supplier decides to take an important component out of production? This is especially devastating for companies manufacturing products with long life cycles and where only one supplier for that specific component exists.

When there is a failure at a site, it is important to instantly identify components that are affected and have a plan for how to source for new qualified alternatives. If the disruption is at a supplier's site providing components to competitors or other companies you might need to make sure you are first on site to claim your components. Instant alerts about potential disruptions then become a critical aspect.

So how does one secure business continuity? The first step is to assess the risks by calculating the time-to-recovery for each node depending on different scenarios. The second step is to prioritize and create mitigation plans. Many companies use single-sourcing for long term strategic benefits, but source diversification can be a better model for diminishing the risk exposure.

It is worth keeping in mind that audits and control drive costs. Firms need to decide if it is a strategic risk they are willing to take and pay the price when something actually happens.

THEME three

Supply chain failure creates operational risks, which in turn impacts revenues, profits, and in worst case your reputation. Successful assessment of operational risks can be a competitive advantage.

Working with operational risks can bring direct value to end customers. This is an area that is easy to understand and with superior quality and delivery reliability firms can also secure a better price.

Managing delivery reliability is key. In a study conducted at a world leading car manufacturer, it was found that a disruption in inventory supply from any one out of 202 suppliers would immediately make it impossible to meet demand. On the other hand, the same company had 147 suppliers where disruption would not have a significant impact for at least 50+ weeks. This case points out the importance of knowing where the organization is most vulnerable and also be aware of the suppliers' individual risk profiles.

Quality is another key concept of operational risks. For fast moving consumer goods, a quality problem can have an immediate impact on both revenue and brand as the consumer stops buying the specific product. For more durable goods, the impact of a quality issue might not give a direct consumer response. As stated by a world leading electrical equipment company; "A standard component that costs 5 cents can create a field failure in a couple of years and the costs for that recall can be up to 4-5000 USD."

It is important that several tiers of suppliers are included in the suppliers' risk profiles. The risks are often hidden within the 'sub-sub' suppliers as transparency and visibility decreases with each tier. Decreasing the levels of tiers often equals diminishing the risk exposure.

THEME four

Depending on industry and localization companies are obliged to comply to regulatory statements. Compliance risk is a complex area and the financial consequences can be significant.

Increases in regulations can be seen across all sectors. Companies are obliged to comply to Data Security & Privacy regulations, Import/Export Compliance, Food & Drug regulations, as well as Environmental regulations, just to mention a few. As laws, rules and regulations are implemented or changed the supply chain needs to be reviewed.

To ensure compliance, it is important to have full supply chain visibility and be ready to disclose information about the company's sourcing and supply chain practices. It is also imperative to constantly keep up to date on new regulations and to respond to them.

Changes in rules and regulation can be a great challenge or even a barrier for small companies. Mature companies often have the adequate control systems and competence to manage these situations. Important areas for managing compliance risk are largely around record management, data security, transparency, visibility and internal audit.

New regulations often generate additional work but can also encourage organizations to ultimately rethink their supply chain and in doing so increase efficiency. As an example, regulations on use of conflict minerals have visualized the complexity in supply chains which in turn has made it possible to rationalize and reduce the number of supplier tiers.

Regulatory and Internal Compliance initiatives drive up cost but the cost for non-compliance can be even greater.

THEME five

Integrating Corporate Social Responsibility (CSR) considerations into supply chain risk management has become increasingly important.

Sustainable supply chain can be seen as the integration of environmental, social, and economic aspects to achieve long-term economic and social viability. These aspects influence decisions during product design, manufacturing, and throughout the lifecycle to product disposal.

Environmental and social responsibility questions that used to be managed in one function are now being discussed cross functionally and are becoming part of the corporate culture. They are no longer treated in separate audits; they are part of the audit.

Organizations are expected to ensure that neither employees nor other stakeholders are being exploited, that the work environment is safe, and that the business is conducted in a way that benefits the community. This applies to every part of the supply chain and all of the organization's suppliers and sub-suppliers.

A failure within this area can be devastating. A classic example is a merchandise chain being confronted with using child labor. The information can damage a brand for a significant time with distrust, "badwill" and decreases in revenues and profits as a consequence. Information and experiences travel fast within social media and companies need to ensure they are on top of these questions and receive instant alerts about anything being published.

It is imperative to identify the elements of the supply chain that are at risk and keep them under close supervision.

THEME six

As the supply chains extends, so do the financial risks. The selection and evaluation of suppliers and partners is truly vital to manage and reduce risk.

The financial health of suppliers is one of the main concerns within supply chain risk management. Financial risks are assessed in the tender process but more rarely in day-to-day management. Furthermore, many companies have difficulties evaluating and monitoring their supplier base. The information needed for evaluating financial health is often difficult to obtain, and if available, is not up to date.

There is a perceived risk in engaging with smaller successful suppliers. Put differently, how long will the supplier be independent (i.e. will they be merged or acquired)? A risk diminishing strategy used by companies is to engage with a market leader instead of small entrepreneurial companies. Another way of managing the risk is to secure insurance against suppliers getting into financial difficulties.

Although it might be a greater financial risk to engage with small companies, there can be advantages from operational, recovery, or sustainability perspectives as well as superior purchasing and bargaining power. There might even be a demand from the community to support small and emerging companies. Buying innovation is another way of supporting small companies and at the same time take control over financial risks.

At the other end of the supply chain are financial risks associated with changes in consumer behavior and changing market conditions. If the market slows down, it is vital to have clear visibility of inventory to avoid inventory write-downs, profit loss and potential fall in stock price.

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Conclusion

So what can organisations do to manage supply chain risks both short and long term? Here are a few ideas:

- Include the choice of *location* at an early stage in the risk assessment part of a outsourcing business case.

- Make sure to attain instant alerts about potential site disruptions and to be first to claim components. Source diversification is a model for diminishing the risk exposure.

- Conduct risk profiles for suppliers and sub tiers. Identify the ones that have instant impact on meeting demand. Decreasing the number of sub tiers to diminish the risk exposure.

- Secure supply chain visibility and be ready to disclose information about the sourcing and supply chain practices to comply to regulatory statements.

- Be on top of sustainability issues. Work proactively, monitor and instantly act if anything harmful is being revealed or published.

- Continuously monitor the financial health of suppliers and sub suppliers. Make sure information is available and that you have adequate internal capability for assessing and mitigating failure.

ABOUT RGP

RGP is a NASDAQ listed, global consultancy with a Big Four heritage providing a high quality, cost effective alternative to traditional consulting firms. We operate through 70 global locations and have worked with 87 of the Fortune 100 and over half the Fortune Global 500.

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