

Whitepaper

Gaining Control in a Turbulent World: The Case for Supply Chain Control Towers

In a world of exponential complexity and constant change, the need for control is greater than ever.

In this White paper, leading business transformation expert Sean Culey describes how companies need to develop more aligned and innovative business practices supported by cross-process tools that provide insight and understanding across the Value Chain. He describes how Control Tower functionality can help companies to create visibility, agility and of course, control.

New World, Old Challenges

According to a recent study of Chief Supply Chain Officers¹, the increasing level of complexity is the number one issue keeping them awake at night. The global nature of the supply chain has resulted in longer and more variable lead times, and a much greater number of suppliers, partners, carriers, countries, customers, languages and logistics channels to deal with, as well as rising supply chain management costs.

The problem is that in order for organizations to adapt to life in this increasingly complex world, they themselves have also become larger, more complicated and more obscure. The measures of success for each process area often are not aligned to what should be the organization's main goal: delighting the customer.

Opposing Objectives and Misaligned Measures

Many companies still have 'command and control' hierarchical style organizational structure where the top people do the thinking and those below do the doing. This unfortunately bakes functional silos into the business by design. Each process area tries its best to meet its objectives, but they are misaligned.

Looking at the metrics taken in isolation, they all seem sensible, but when the value chain is viewed in its entirety, the disconnect becomes visible. The figures used for making decisions are based on past events, not current issues. This results in issues that run counter to the cost reduction drive, such as writing off excess stocks, providing unscheduled discounts as compensation for service issues, holding excessive

inventory levels and providing multiple shipments per order. Employees end up working overtime, meetings become excessive and huge quantities of reports are produced. All time and effort that would be far better invested in customer satisfaction if things has been right first time.

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The Search for a Silver Bullet

In an attempt to utilise technology to solve what is in fact a problem of leadership, organizational culture and lack of strategic direction, many companies implemented integrated business systems such as SAP. This has not been the silver bullet many hoped for.

Numerous studies² have highlighted the fact that only 58% of ERP implementations achieved the originally desired results.

You Can't Control What You Don't Understand

The ability to provide companies with information on the effect that changing customer demand or a delayed delivery will have on the entire supply chain, is just an example of what legacy systems have been unable to deliver to support this level of supply chain visibility.

Companies found that, despite the promises, this type of information is not easily retrievable from SAP data. As a result, business users often feel that while they are drowning in data, they are at the same time experiencing great difficulty finding insights.

Poor data control at an operational level is responsible for significant customer service issues – just think how many data capture points exist in the modern supply chain, and the potential for error. All issues occurring in the system are contributing to profit being simply poured down the drain.

Figure 1 illustrates a concept that many organizations get wrong: faced with the task of addressing some uncomfortable truths – that their data is a mess, their processes misaligned, their measures silo focused.

Organizations then stick their head in the sand and pretend that they can circumvent this by purchasing more technology, reorganizing the reporting lines or leaping onto new buzzwords hoping they prove to be a silver bullet to their woes.

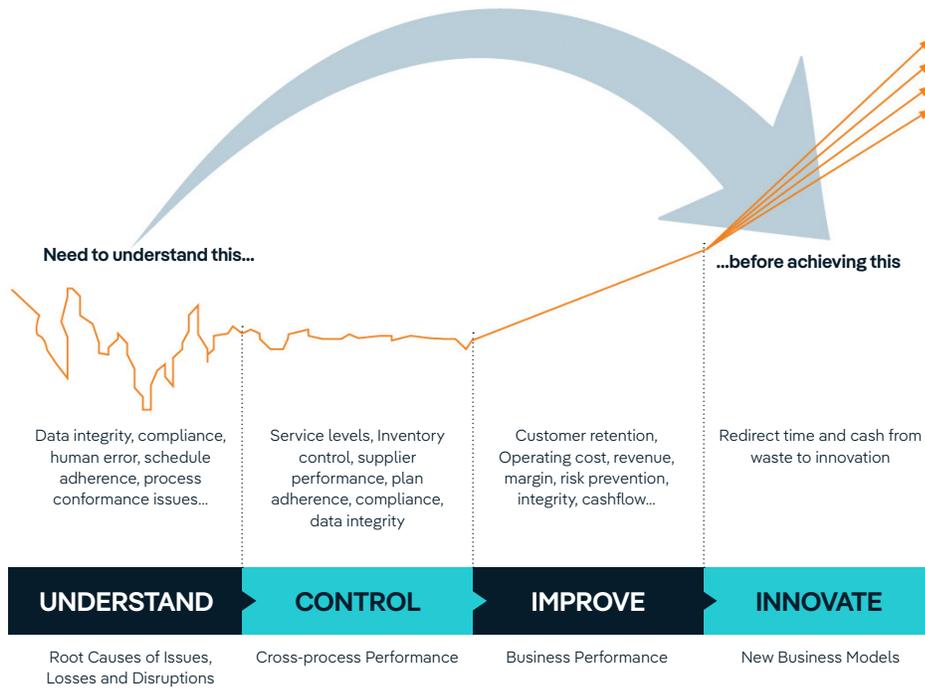


Figure 1: Source: Sean Culey, *how to Develop Aligned, Engaged and Innovative Organizations*.

If an organization is unable to identify the root of its operational errors, it is practically impossible to get a real handle on the situation.

Often, companies find themselves responding to today's crisis and perhaps even sacrificing tomorrow's schedule to satisfy today's issues. It is an addictive place to be, as it provides short-term fulfilment and hero creation, and leads to companies becoming so good at the task of chaos management that they start to mistake it for business as usual.

According to big data guru Bernard Marr, the value of data does not lie in its quantity, but in what you can do with it³. There is enormous business value for those understanding that the key to data analytics is knowing what to analyze. You cannot control what you do not understand, let alone improve or innovate it. Using the right analytical tools in order to gain understanding will enable control, control enables improvement and a focus on continual improvement will identify new and exciting innovating opportunities.

It will, therefore, become increasingly important for organizations to be able to understand their existing data to ensure these future insights can be acted on effectively. Insights that enable better decisions to be made, products and services to be brought to market more quickly and efficiently and enhanced insights obtained that enables them to succeed.

Visibility – Critical But Not Sufficient

Yet while visibility is critically important, on its own it is insufficient. Business users also require the flexibility to analyze data, ask it questions, determine root causes, investigate alternatives and understand their impact and opportunity costs – all in order to derive insights that drive action.

In response to this, the concept of the Supply Chain Control Tower has arisen. A control tower

acts as a centralised hub, using real-time or near real-time data from existing transactional systems, able to integrate processes and tools across the end-to-end supply chain and drive tangible business outcomes⁴.

Control Towers are designed to not only provide the required visibility to survive and thrive, but they should also be able to discern real-time key performance indicators (KPIs) populated by data from across the entire extended supply chain.

A supply chain control tower should provide three key benefits to the modern supply chain team:

01 Visibility

A control tower provides real-time access to information across the end-to-end supply chain.

02 Analytics

A control tower contains powerful analytical tools that enable supply chain managers to make sense of the visibility data, performing “what if” analysis to enable effective rapid response and root-cause analysis to drive structural performance improvements. This helps supply chain managers to cope with disruption, manage risks and target value opportunities.

03 Execution

A control tower helps to ensure that each part of the supply chain knows when and how it will be impacted by another part, and the monitoring of activity helps enable continuous improvement.

“ It needs to be able to convert data into information, and information into insights.

Understanding Enables Control

To describe the difference between a control tower and what most companies have through reports and data visualization tools, let’s consider the role of an airport control tower. If air traffic control operated like a normal supply chain, it would set the plan for the week or month, and then measure its success by reporting on the condition and timeliness of the planed that had landed. What percentage landed without crashing, on time and with all the required passengers still alive? How many had we planned to land successfully?

Of course reality is very different. Air traffic controllers need to understand what is going on with all of the planes, from different airlines, different passenger numbers and different fuel conserves. They need to understand what planes do not have enough fuel to circle the airport waiting for a slot, and which ones are likely to have a large number of passengers who need to catch connecting flights. They need to know the priority and impact of decisions.

Most businesses only have visibility into landed planes. Many have made large investments into BI tools designed to increase the level of visibility into their business activities. Data has been visualized, beautified, converted into graphs and analysis – but has it added value? Do they have better results than before – or just more data?

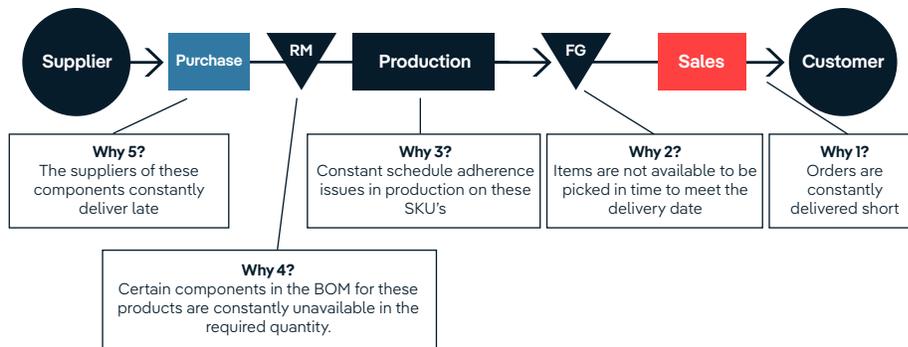


Figure 2: Understanding the root cause of service issues.

To be really empowering, the control tower needs to not only report on the data in the supply chain, making it visible – it also needs to understand it. It needs to understand the relationships between processes, between objects, between demand and supply. It needs to be able to convert data into information and information into insights. To do this, the control tower needs to highlight exceptions, shortages, critical orders, bottlenecks, excess inventory and potential delays. It can only do this if it has much more than simple visualization capabilities – it needs to have built-in intelligence.

See figure 2 for an example where the '5 whys' approach has been applied to a situation where the service level has dropped to an unacceptable level.

In this instance, the organization has been able to distinguish between symptom (poor service to customers coming out of the distribution centre) and root cause (supplier delays in delivering key components). The next step would be to evaluate the purchase orders that are supplying these orders. In normal ERP-systems, this would only be possible for make-to-order items, where there is a direct relationship between the component supply and the demand for the finished good. In make-to-stock scenarios where the requirements are deemed 'independent' this visibility is not possible, which supports the silo focus that was highlighted as a critical issue at the start of this paper.

What we need to know is which of these delays is going to hurt us. Which one will cause a delay in production, or a shipment go short. Which items are urgent, and which are just building stock. Insight enables us to make decisions – to take action.

To achieve this level of decision making requires actionable insight, or what has become known as 'prescriptive analytics'.

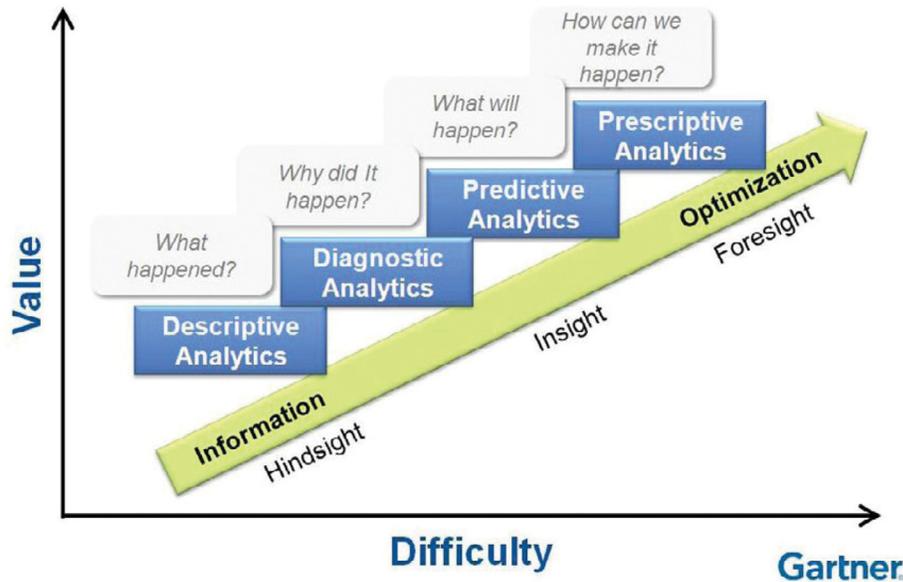


Figure 3: Source: Gartner (2012) "Analytic Value Escalator"

Empowering the Users

Descriptive analytics is still the most common type of analytics used today. Descriptive analytics uses historical data to provide users with insight into past events; they describe what happened. The next level is diagnostic analytics, which uses the historic information and attempts to provide insights as to why it happened.

Predictive analytics goes a step further. It is not only used to identify problems, but also indicates the root cause and provides recommendations on the measures required for best result. This allows for real understanding of both the issues as the answers.

Prescriptive analytics represents the highest level of analytical maturity, and should be the level that you attempt to include in any supply chain control tower. Prescriptive analytics provides insights that enable the business to take action before issues reach the customer, controlling performance and ensure that the cross-process team understands exactly why issues occur so that they can work together to eliminate them from occurring in the future. It provides the ability to shape the future in such a way that it supports your strategy and minimises losses⁵. This is how true value is generated.

The Benefits of Supply Chain Control Towers

Once installed, the visibility, understanding and control that a Supply Chain Control Tower provides should a business allow to:

Identify if the required level of business performance is being obtained

Examples of the strategic benefits a good Supply Chain Control Tower provide include, improved service, increased responsiveness, less waste, optimum stock management, improved compliance, reduced cost-to-serve, controlled risks and managed date.

Identify shortage and excess inventory issues before they impact the customer

The best on-demand technologies provide (near) real-time information that alerts team members and suppliers to those issues requiring immediate resolution. They should focus on open orders (planes in the air) as much as closed ones (landed planes). Any issues should be easily identified via alerts that are triggered once predefined business metrics exceed their defined tolerances and thresholds, ensuring that the most important issues are highlighted and resolved quickly.

Enable supply chain managers to address issues as they surface

Knowing that a supply chain disruption has occurred is one thing, but the ability to respond quickly and intelligently is what really separates the best-in-class supply chain from its counterparts. A Control Tower should enable cross-functional team members to work proactively to resolve the most pressing issues. The most sophisticated Control Towers will provide real-time dashboard visibility and actionable insights to assess the operational and financial impact of changes.

Summary of Control Tower Benefits

- ✓ Establish trust across the entire supply chain.
- ✓ Leverage visibility to employ cross-process analysis and decision-making.
- ✓ Combines data visibility with added insight and analytical capabilities to achieve improvements in business outcomes.
- ✓ Achieve consistency in item identification, units of measure and time buckets.
- ✓ Ability to see the impact and root causes of issues across the value chain, not just functional symptoms.
- ✓ Provides a unified view of what is happening right now, with the ability to drill down to detail.
- ✓ Ensures the right people can access the right data at the right time – expediting decision-making.
- ✓ Allows value chain team to be instantly alerted to changing demand and supply conditions and their impact.

Conclusion

The new generation of analytical tools provide transparency and visibility into the complex nature of the modern supply chain. Business users today live in an on-demand world, and as a result they need to be able to understand and use tools without the help of IT staff. These insights allow business professionals to detect problems before they occur and to respond appropriately. By identifying all variables in the chain and understanding their impact, managers can intervene proactively and regain control.

No hindsight

They now no longer run their business hindsight and long-term plans, by simply reporting on the status of planes that have already landed. The pace of modern business and the complexities inherent within it require them to understand what is going on with the planes in the air, understand which flights are critical and which ones can be left alone.

Technology goes through three stages

First it is primitive, then it becomes complicated and finally it gets simple. In order to empower the business to control its own destiny you need to provide it with the capability to cut through the complexity, see the issues, understand the root cause and determine the right course of action.

T-shaped people

We talk constantly of 'T-shaped' people who understand more than just their functional role but also their place in a network of activities designed to deliver a defined value proposition to a defined segment of people.

'T-shaped' people need 'T-shaped' tools, Control Tower comes in. Strong, cross-process collaboration tools that are focused on helping people to achieve desired outcomes, not just report on past activities. Tools that do more than just look good – they provide insights and information that were previously impossible, making connections between data points that previously required specialised knowledge and significant efforts. Tools that support the on-demand world we now live in, ones that enable them to understand the issues of the day and to retain control – on demand.

¹ Source: *Supply Chain visibility: A Critical Strategy to Optimise Cost and Service*, Aberdeen Group 2013

² 2015 ERP Report: A Panorama Consulting Solutions Research Report

³ Marr, B. (2015). *Big Data: Using Smart Big Data, Analytics and Metrics to Make Better Decisions and Improve Performance*. John Wiley & Sons

⁴ Prepare for Takeoff with a Supply Chain Control Tower Podcast, Accenture, Jose Bleda, Global Managing Director for Accenture Supply Chain Services

⁵ Franks, B. (2014). *The Analytics Revolution: How to Improve Your Business by Making Analytics Operational in the Big Data Era*. John Wiley & Sons.

Magnitude Angles for SAP

Magnitude Angles for SAP aims to enrich organizations with actionable insight to understand, control and improve the performance of Angles for SAP. The built-in intelligence automatically adapts to each organization's specific configurations and allows business users to fully understand why activities and processes influence the value chain performance.

Angles for SAP contains sophisticated, built-in intelligence and unique, cross-process 'supply and demand matching' capabilities that are not available in any other BI tool, including SAP itself. It works on any SAP system, regardless of the underlying database (including HANA), and it automatically understands and adapts to the organization's specific SAP configuration, allowing for a plug-and-play implementation that requires little IT effort to install and maintain. Angles for SAP hides the complexity of SAP's data structures, empowering business users with self-service 'actionable insight' analytical capability that allows them to identify and resolve key business issues before the customer even notices.



About Sean Culey

Sean A. Culey, SCOR-P, FCILT, is a recognized strategic advisor, business transformation expert, keynote speaker and author focusing on helping companies develop compelling value propositions and strategies that get executed.

Sean has 25 years of global experience across numerous verticals and geographies, including a decade working for Cadbury Schweppes as a global design authority for what was the world's largest SAP implementation, and six years as CEO of a boutique management consultancy. He is also a member of the European Leadership Team of the APICS Supply Chain Council, a certified SCOR Master Instructor (SCOR-P) and a fellow of the Chartered Institute of Logistics and Transport (FCILT).

He has also written numerous articles for prestigious publications such as The World Financial Review and The European Business Review on business transformation, automation and disruptive technologies, supply chain segmentation, cultural change and employee and customer engagement.

His book, "Transition Point: From Steam to the Singularity" is now available on Amazon.

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