

## Art Koch's Profit Chain® Tips

### Supply Chain Entropy Busters®: 3 Phases to Accelerate Processes

Volume 5 | Number 20 | November 2024

I'd like to share an article I had published in YFS Magazine.

#### [Supply Chain Entropy Busters: 3 Phases to Accelerate Processes](#)

Have you ever considered the impact of entropy on your business – let alone your supply chain? If you haven't, you're not alone. It was only during my undergraduate studies, while talking with a physics professor about my career, that I began to consider it.

You can read the article at the link above, but I include it in full below.



### Supply Chain Entropy Busters®: 3 Phases to Accelerate Processes

Have you ever considered the impact of entropy on your business – let alone your supply chain? If you haven't, you're not alone. It was only during my undergraduate studies, while talking with a physics professor about my career, that I began to consider it.

#### Telltale Signs That Add Up

Entropy is a way to describe how much disorder or randomness there is in energy or a system, but what does that really mean? Consider the First Law of Thermodynamics: Energy can't be created or destroyed. It can only change forms.

Now consider the Second Law of Thermodynamics in simple terms: entropy always increases. This principle explains, for example, why you can't unscramble an egg.

Here's another example of entropy: As you cruise through the countryside, you spot an old barn that's seen better days—some boards are missing, the paint is peeling, and the surrounding field is overrun with brambles and weeds. The barn and the field are transitioning into a more chaotic, lower energy state, resulting in greater disorder.

Businesses often experience entropy without even noticing it—minor declines that accumulate into a much bigger issue, greatly impacting sustainability and profits. Common instances that often arise in the workplace include:

- Meetings start late.
- Offices are messy and desks untidy.
- KPIs are not updated on time or at all.
- An operator stopped doing their first-piece inspection.
- A buyer stopped following up on purchase order acknowledgments.

What about in supply chain management (SCM)? Entropy creeps into the supply chain in some telltale ways. I notice this in many areas of SCM. However, it doesn't occur instantly. It may take weeks, months, or even years to build up, which I refer to as entropy creep.

- Unorganized and messy warehouse.
- Data inaccuracies such as inventory accuracy or lead times.
- Firefighting, rushed orders, late shipments.
- Unhappy customers.
- Stressed employees.
- Increased costs.

### **Bust Supply Chain Entropy in 3 Stages**

When people don't follow processes or processes don't exist, entropy creep occurs. When processes work well, we can get complacent and move on to the next problem without following up to be sure sustainability is in place. But it's not enough to follow the motto of working harder.

Organizations must understand the First and Second Laws of Thermodynamics, work smarter, utilize internal talent to build processes that prevent entropy creep, and most importantly, understand and accept the importance of crawling before walking, and walking before running.

Follow these three phases to achieve those goals – the keystones of a process methodology I call Entropy Busters®:

#### **Phase I: Overcoming Denial**

In this phase, you increase team involvement to focus problem identification and resolution. You're identifying and dismantling patterns of denial. You're loading the team bus with the right people, and engaging them.

#### **Phase II: Making Progress**

To achieve operational excellence, you need to conduct visual daily management, know your numbers and your priorities, and get everyone on the same page.

#### **Phase III: Tending to Your People**

People matter. Working on team building, establishing community and a sense of belonging, and having fun will build the kind of teamwork and accountability that prevent teams from turning into firefighters and keep entropy at bay.

### **Entropy is a Significant Threat to Profitability**

Here's the bottom line for any business – and especially your supply chain. Entropy is a gigantic profit killer. Ask yourself these questions to see if entropy has already crept in:

1. Is your team good at the early detection of problems, or are they better at firefighting?
2. How often are there surprise part shortages, inventory corrections, supplier issues, schedule changes, or pricing issues?
3. How good is the supply chain team at managing the supply chain process?

Energy and resources must be added to build and maintain an organization, building and sustaining a world-class supply chain process. If you need work done to your enterprise, more heat, energy, or resources must be added from the outside or transferred internally from non-value-added activities.

As leaders, we need to break the entropy cycle – and we can. People do what's inspected, not expected. Establish visual daily management processes with visible KPIs, implement daily Gemba walks to review results, and utilize *Safety, Quality, Delivery, Inventory, and Productivity* (SQDIP) as part of day-to-day visual management.

Create a culture of friendly competition. Develop a quarterly "good wins-bad losses" report for key metrics. Make *Total Cost of Ownership* (TCO) a high priority for teams to accomplish, and use KPIs to help find the hidden problems or "rocks."

Be the solution. Create the energy for change, involve everyone, communicate openly and frequently, visualize performance, and celebrate successes.

Remember, if this were easy, someone would've done it already! The critical thing is get started.

If you want to discuss this topic further and how it might impact your business, schedule a 30-minute call with Art here. [30-Minutes with Art info@arthurkochmgt.com](mailto:info@arthurkochmgt.com)

Carpe Diem,

Art Koch

---



Find out more about "The Supply Chain Revolution" [here](#).

## Art Koch's Profit Chain®

Create dramatic improvements to inventory velocity, customer service, and corporate profits.

If you have any questions or concerns about your operations and supply chain business strategy, please contact me by [e-mail](#) or at +1 (336) 260-9441.

- White Papers | [Art Koch's Profit Chain® White Papers](#)
- Supply Chain Tips sign-up | [Art Koch's Profit Chain® Tips](#)

**Self-Ranking - Pick one of the four questions below and fill in your comments relating to the current month's newsletter in the space provided.**

1. Don't think this applies to your business or enterprise? (Write three to four reasons why it might not.)
2. A new idea and strategy; we need to work toward it. (Brainstorm the first steps.)
3. We can do better. We just need to modify our strategy, and now we are moving in the right direction. (What are the next steps to ensure success?)
4. Our team gets the time to keep their minds fresh, and we plan to live our dreams. (Comment on how you're ready.)



- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

Thanks in advance for your time and for being a loyal client. Looking forward to helping you and your team again soon.

Carpe diem,

Art Koch  
Arthur Koch Management Consulting, LLC

info@arthurkochmgt.com

+1 (336) 260-9441



**Don't be afraid to call with any questions or comments.**

**Entropy Busters®**  
Stop letting the process manage you! Become the champion of your game plan and achieve sustainable profits.

**The Inventory Doctor®**  
Assessing the health of enterprise inventory and procurement practices.

**Inventory Is Evil!™**  
in·ven·to·ry / 'in·vən·tôr-ē / noun  
Inventory is the term for the goods available for sale and raw materials used to produce goods available for sale.

in·ven·to·ry is evil! / 'in·vən·tôr-ē is 'ē·vəl / phrase  
"Left unchecked inventory has many negative unintended consequences to profitability. It hides problems; therefore, it delays fixing problems!"

**Transforming Problem Chains into Profit Chains™**

**Sign up for our monthly newsletter**

*Art Koch's Profit Chain®*, *Entropy Busters®*, and *The Inventory Doctor®* are the registered trademarks of Arthur Koch Management Consulting, LLC.

*Turning Operational Problems into Profits<sup>SM</sup>* and *Unlock the Art of Change<sup>SM</sup>* are pending trademarks of Arthur Koch Management Consulting, LLC

© 2024 Arthur Koch Management Consulting, LLC, all rights reserved.



*Arthur Koch*  
Management Consulting, LLC