

A collage of supply chain elements including a globe, a chain, an airplane, and trucks. The globe is in the center, surrounded by a chain of links, an airplane, and several trucks. The background is a light, textured surface with some faint, abstract shapes.

BUILDING RESILIENCE TO PREVENT SUPPLY CHAIN DISRUPTION

MARCH 6, 2020

**Michelle Wright – CSCP
APICS North Texas Chapter**



Agenda

- Introduction – Bio - Michelle Wright
- APICS UNT Student chapter
- APICS Certification opportunities
- Supply Chain Trends
- Supply Chain Risk
- Supply Chain Disruption including Natural Disasters / Catastrophes / Digital Technology
- Black Swan of 2020
- Supply Chain Risks / Disruption due to the Coronavirus
- Preparing for Supply Chain Disruption with RESILIENCE!
- Closing



Michelle Reilly Wright CSCP 2019

*Penn State, MBA in Management Information Systems

*DuPont's Information Systems Department Management Training Program.

*Moved to Texas in the '90s

*Worked for Sealand (inter-modal transportation), Nokia, Ryder Supply Chain Solutions, Nissan IT Sales Finance and Capital One often doing vendor management

*Career success coach. college fair volunteer, American Productivity and Inventory Control Society (APICS) board member

*Enjoys college sports and training dogs, cats and horses.



APICS UNT STUDENT CHAPTER

- APICS North Texas is working with Dr Michael Savoie from the MLOM department
- Re-establishing the APICS UNT student organization
- Register via instructions from your MLOM instructors or give me your card for email instructions
- Free membership – free use of APICS dictionary and SCOR app
- APICS North Texas will organize a student chapter kick-off meeting
- Look forward to meeting new friends, tours, professional development meetings, social events, and other educational opportunities
- Network with SCM professionals
- Student leadership opportunities



Premise

Harvard
Business
Review

DEVELOPING EMPLOYEES

Managers Aren't Doing Enough to Train Employees for the Future

by David W. Ballard

NOVEMBER 14, 2017

SUMMARY SAVE SHARE COMMENT 0 TEXT SIZE PRINT \$8.95 BUY COPIES



KEystone FRAnce/GETTY IMAGES

“For employees who lack supervisor support and encouragement for career development, only 15% say they their employer is providing them with opportunities to develop the technical skills they will need in the future” - David Ballard

<https://hbr.org/2017/11/managers-arent-doing-enough-to-train-employees-for-the-future>



ROLE OF CERTIFICATIONS FROM INDUSTRYSTAR INTERVIEW

How have certificates helped you as a supply chain professional?

- Education gained from certifications have shortened the learning curve
- Enabled ability to solve complex supply chain issues

How have certifications helped you?

- Advanced critical thinking skills
- Fueled a personal continued focus towards the journey of best practices
- Sparked a process improvement mindset
- Courage to challenge business practices

Do you recommend companies put in place a certification training program?

“SCM is evolving and becoming more multifaceted, specialized knowledge gained from certifications will naturally become more vital for firms to stay competitive in today’s global business environment.”

IndustryStar
SOLUTIONS

SERVICES SOFTWARE



5 Supply Chain Certifications Every Professional Needs

Strategy | Aug 3, 2016

There are many certifications available for supply chain professionals looking to acquire the skill sets to address the complex supply challenges of today. Certifications also provide added credentials that can allow professionals to advance at their current companies or become more attractive candidates in the job market. We recently sat down with [Vince Mazak](#), Supply Chain Project Manager at [Aveill](#) (a Boeing Company) who holds PMI – PMP, APICS – CPM, and APICS – CSOP certifications to get his thoughts on attaining certifications and what value certifications



Who needs training? Which roles/titles?

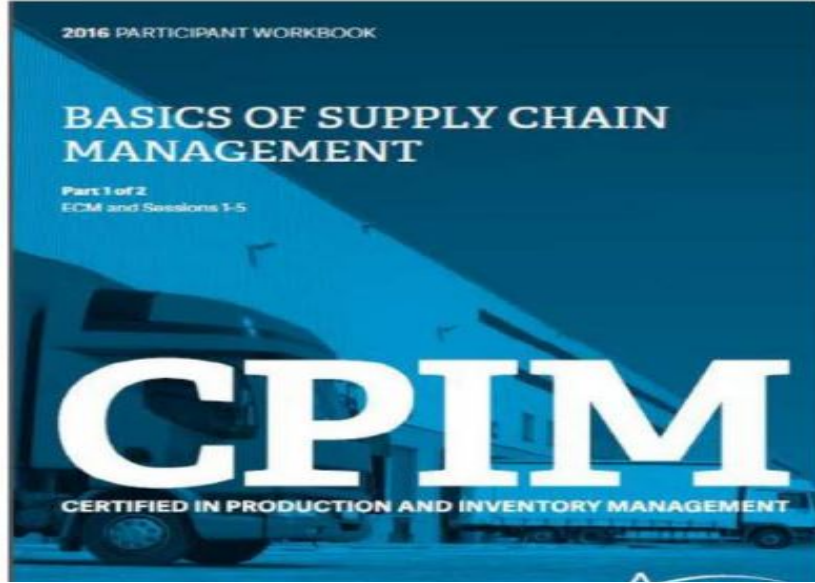
- | | |
|---|--|
| <ul style="list-style-type: none">• Production Management• Inventory Management• Operations Management• Supply Chain Management• Supply Chain Network Design• Forecasting• Demand Planning• S&OP• Master Scheduling• Supply Planning | <ul style="list-style-type: none">• Strategic Sourcing• Procurement• Purchasing / Buyer• Materials Management• Warehousing• Distribution/Transportation/Logistics• Customer Service• Center of Excellence• Finance / Cost Accounting• Manufacturing Information Systems |
|---|--|

How do we get all of these people to...

- understand this integrated process?
- speak a common language?
- contribute toward KPI improvement?



APICS CPIM DESIGNATION



- APICS Certified in Production & Inventory Management
- Designation preferred by employers
- 104,000+ individuals certified
- 5 courses and 5 exams
- “Inside the 4 walls of your business”

****Exam changed from 5 modules to 2 modules in 2018***



CPIM Part 1 Content

Why you should earn the CPIM designation

- Increase your salary - on average designees see a 10% increase
- Improve your hiring potential by 65%
- Maximize ROI on systems and technologies
- Reduce your organization's costs
- Provide more value to your organization
- Understand how to increase customer satisfaction
- Build your credibility and set yourself apart from peers



APICS CSCP DESIGNATION



Module 1 – SCM – overview, strategy, product design, managing, improving
Module 2 – Procure & Deliver Goods, Demand Management, S&OP, Supply Chain partner relationships
Module 3 - Measure, analyze & improve the Supply Chain, Best Practices, Continuous Improvement

- **APICS Certified Supply Chain Professional**
- Designation preferred by employers
- 20,000+ individuals certified
- 1 course & 1 exam
- “End-to-End Supply Chain”
- “From your supplier’s supplier, through the operation, and on to your customer’s customer”
- “Highest Level Curriculum”

Why you should earn the CSCP designation

- Increase your salary - on average designees see a 12% increase
- Improve your hiring potential by 65%
- Maximize your organization's ERP investments
- Effectively manage global end-to-end supply chain activities
- Understand how to increase customer satisfaction
- Increase your professional value and secure your future



APICS CLTD DESIGNATION



APICS Certified in Logistics, Distribution & Transportation

- Sets the global standard for best practices in Logistics
- 1 course and 1 exam
- “Logistics/Distribution/Transportation”
- “Available Now”

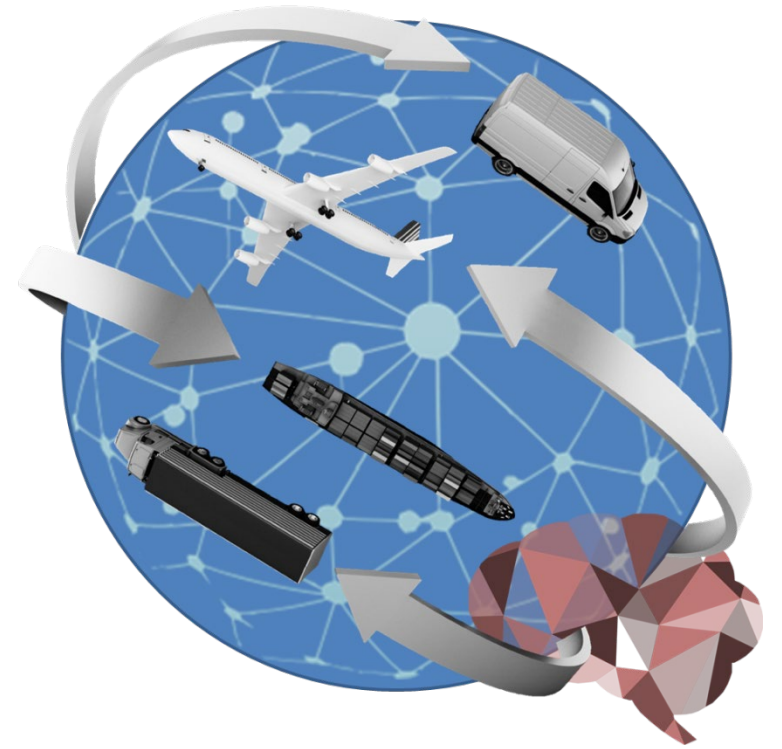
Why you should earn the CLTD designation

- Gain recognition in the field as a logistics expert
- Build credibility and set yourself apart from peers
- Learn latest trends in global supply chain logistics
- Impact your organization's bottom line
- Demonstrate logistics mastery of knowledge



Supply Chain TRENDS I

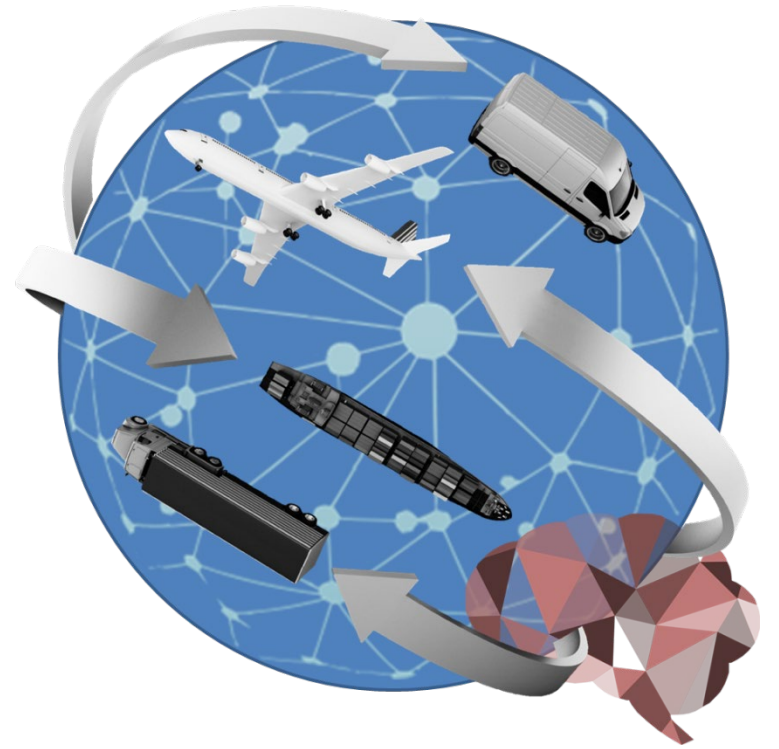
- Globalization – the interdependence of global economies
- Outsourcing / Offshoring - obtaining goods / services from another company in place of an internal source
- Supply-base rationalization - shrinking by reducing the number of active suppliers





Supply Chain TRENDS II

- Just-in-time deliveries – strategy to facilitate speedier order fulfillment
- Superior customer service expectations - proactive customer service with better use of reviews/ feedback
- Sustainability- focus on activities that provide benefit today without compromising the needs of future generations.





Supply Chain

TRENDS

- Trend towards reducing costs
- Trend towards outsourcing/offshoring
- Trend towards JIT
- Trend towards supplier consolidation

CONSEQUENCES

- Global – More complex
- Loss of control
- Efficiency vs. effectiveness
- Supplier failure

RESULTS IN



Brittle Supply Chains

Brittle Supply Chains are more susceptible to disruption.

Non-brittle Supply Chains embrace change in a way that harnesses disruption to drive innovation.





Turbulent times

Change is Constant

Disruption is Everywhere

Planned vs. Unplanned
Comes from Every Direction
Positive or Negative Impact



RISK



Risk - Definition

- An uncertainty that might endanger the accomplishment of a professional or personal objective
- Is a cost – reward is the benefit
- Not always bad
- Always uncertain
 - Positive(Oppportunity)
 - Negative(Threat)
- All personal and professional investment involves risk and uncertainty
- Not every reward is worth the risk



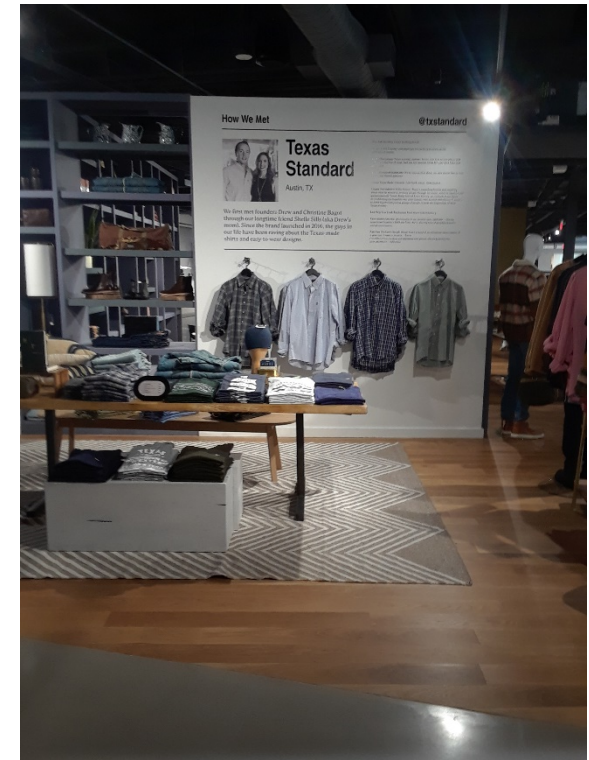


2020 Supply Chain Risks

- Climate change
- Increasing social inequity
 - Unfair avoidable differences from poor governance, corruption, etc.
- Increasing global population
- Increased global insolvencies
 - Not being able to pay back monies that you owe
- Global democratization movement
 - Give world citizens a say in voting for the UN Secretary - General
- Increased terrorism
- Tariff wars like US – China trade policy whiplash, Brexit, etc.
- Social media threats – privacy and security - cyberattacks
- Slavery
- Aging population
- Talent shortage



Planned Disruption of the Supply Chain - Local



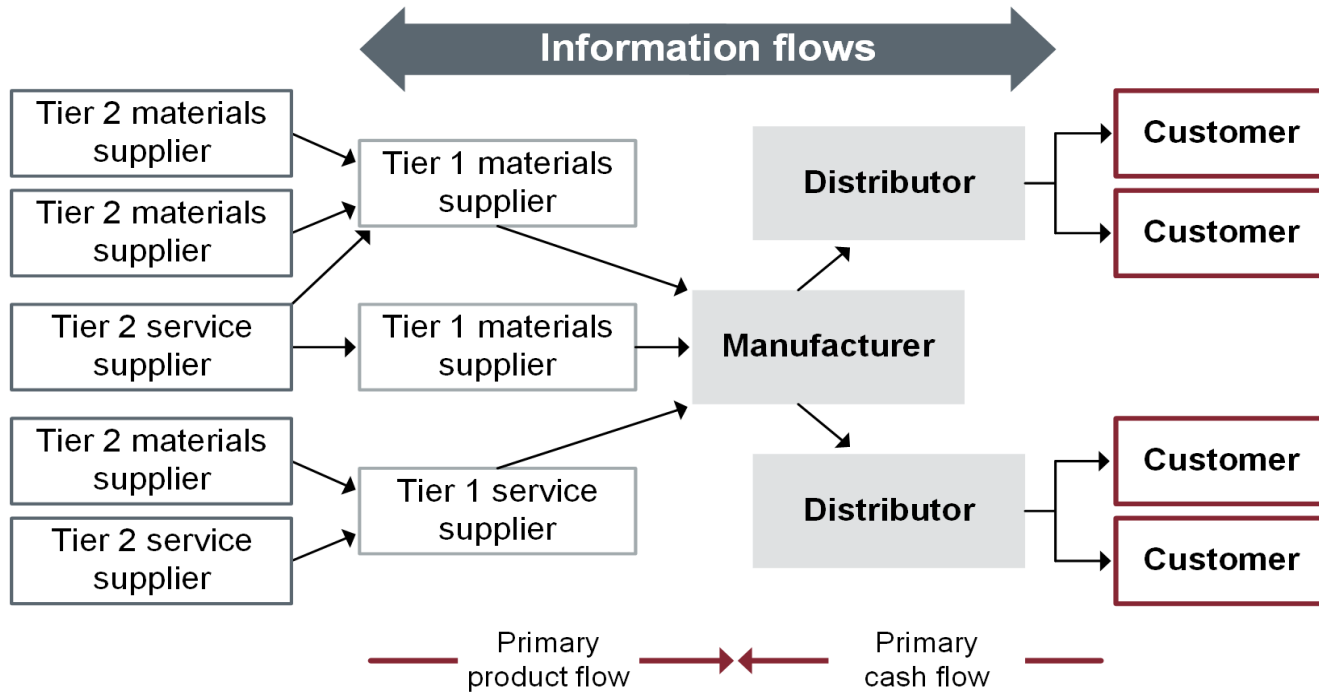


Planned Retail Disruption of the Supply Chain - Local

- 'Market By Macy's' launched Thursday 2/6 in Southlake, TX,
- The first-ever location for Macy's new retail concept.
- Not located in a mall.
- A lifestyle center. Feels like a boutique.
- New social shopping space that celebrates discovery, community & convenience.
- A model that is still relevant five to ten years from now.
- Macy's just announced it'll close one-fifth of its stores in the next three years.



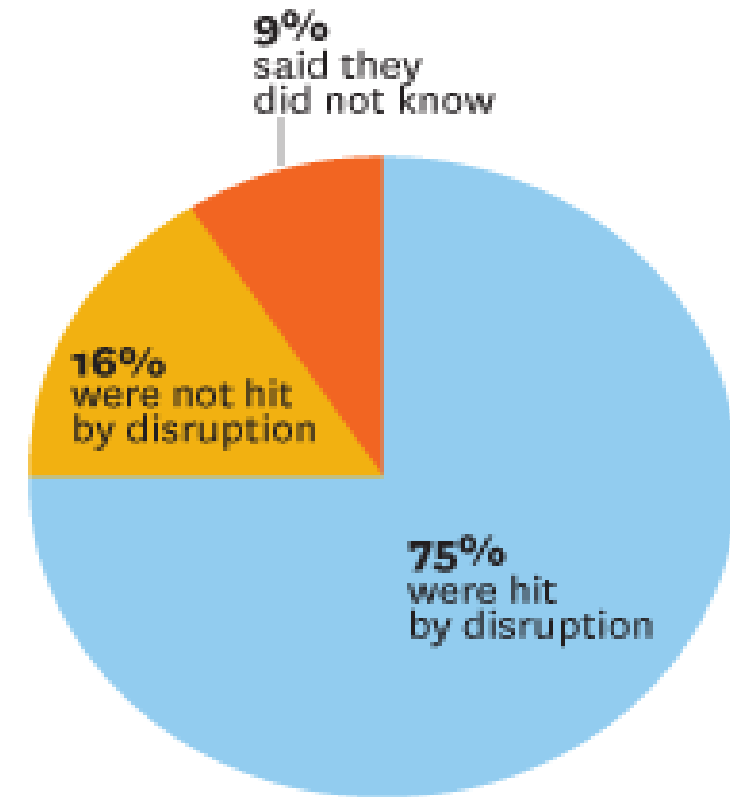
Disruption is Everywhere - Supply Chains



Zurich Insurance – 40% supply chain disruptions caused by levels below tier 1

SUPPLY CHAIN DISRUPTION ISN'T AN ANOMALY

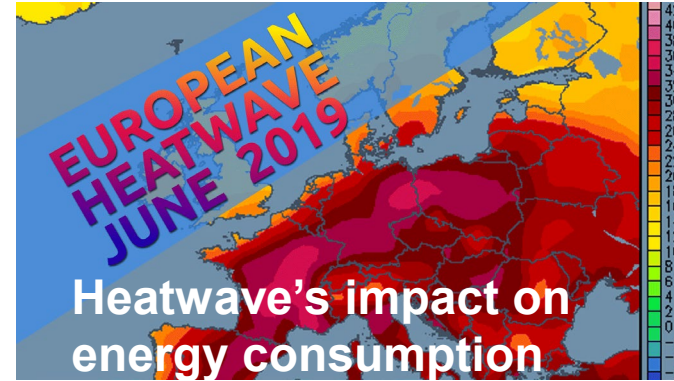
Seventy-five percent of companies surveyed were hit by at least one major supply chain disruption over the past two years.



SOURCE APQC

HBR.ORG

ANGRY MOTHER NATURE – NATURAL DISASTERS



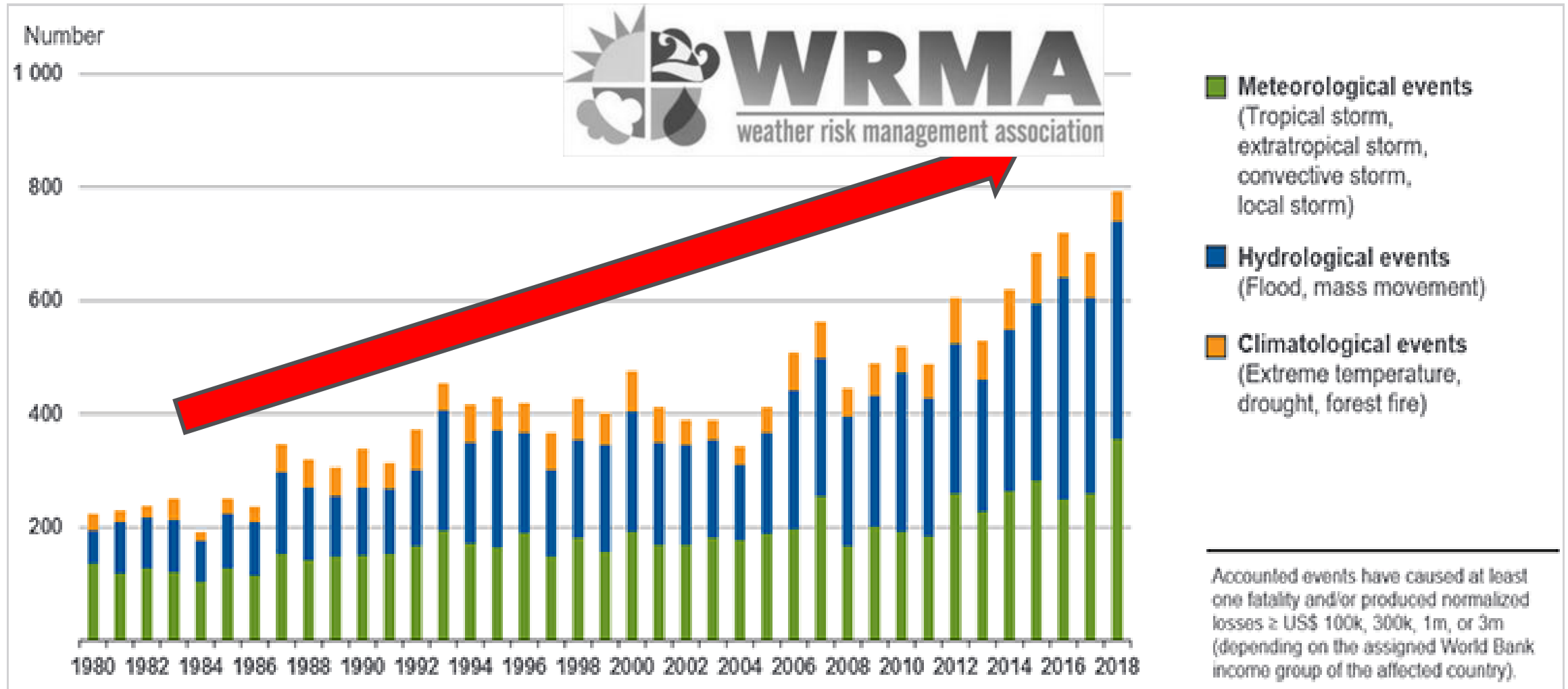
Mid-west floodings impact on corn & soybean crops

Typhoon's impact on life & economic activities will be prolonged.

Fires impact on Brazil's rainforest – overall negative impact on climate change

THE FREQUENCY OF EXTREME WEATHER EVENTS IS RISING

Number of World Natural Catastrophes, 1980-2018



• Source: © 2019 Munich Re, Geo Risks Research, NatCatSERVICE. As of February 2019 ■



DEVASTATING TORNADOES IN MIDDLE TENNESSEE – MARCH 2020

- **Monday night 3/2/20, two powerful tornadoes tore through Nashville, Tennessee & its surrounding counties**
- **Left power & transportation systems in disarray**
- **Dell is fundamentally the only significant-technology footprint in Middle Tennessee**
 - Dell operates corporate offices & fulfillment centers out of this region
 - A number of Dell's corporate suppliers are located in the Nashville area
 - A building run by FedEx, which manages the company's Custom Factory Integration services and also housed Dell retail inventory, was heavily damaged by the storm.
 - Multiple fulfillment centers run by Ceva Logistics were supposedly damaged but not yet confirmed as damaged by Ceva Logistics.
 - Could present a significant challenge to Dell's supply chain, & might result in much of its retail volume being routed through other cities
- **Nashville's mayor: "The city is a resilient city" on 3/2/20 after the storm.**



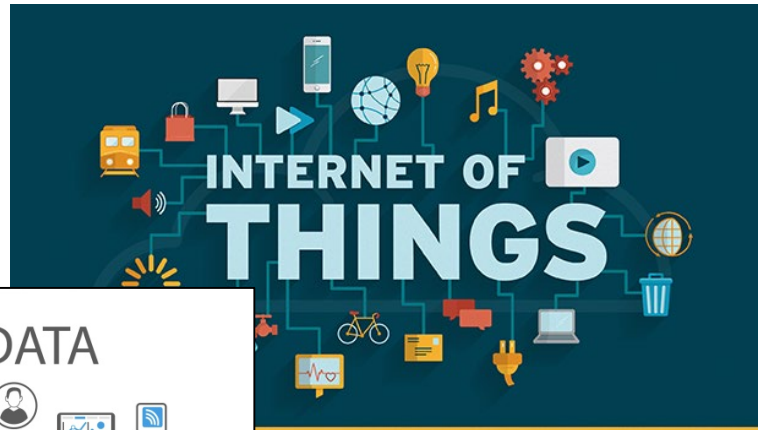
DIGITAL TECHNOLOGY DISRUPTION

social media is going from a “nice to have” to an essential component of any business strategy

More people own a mobile device than a toothbrush



wiseGEEK



Social network penetration is constantly increasing worldwide and as of January 2019 stood at 45 percent.
<https://www.statista.com/statistics/278414/number-of-worldwide-social-network-users/>

every minute more than 30 million messages on Facebook and almost 350,000 tweets.





What is DISRUPTIVE INNOVATION?

Disruptive innovation - is a product or service that initially takes hold at the bottom of a marketplace, but relentlessly expands until it eventually displaces established competitors.

Some well-known examples include

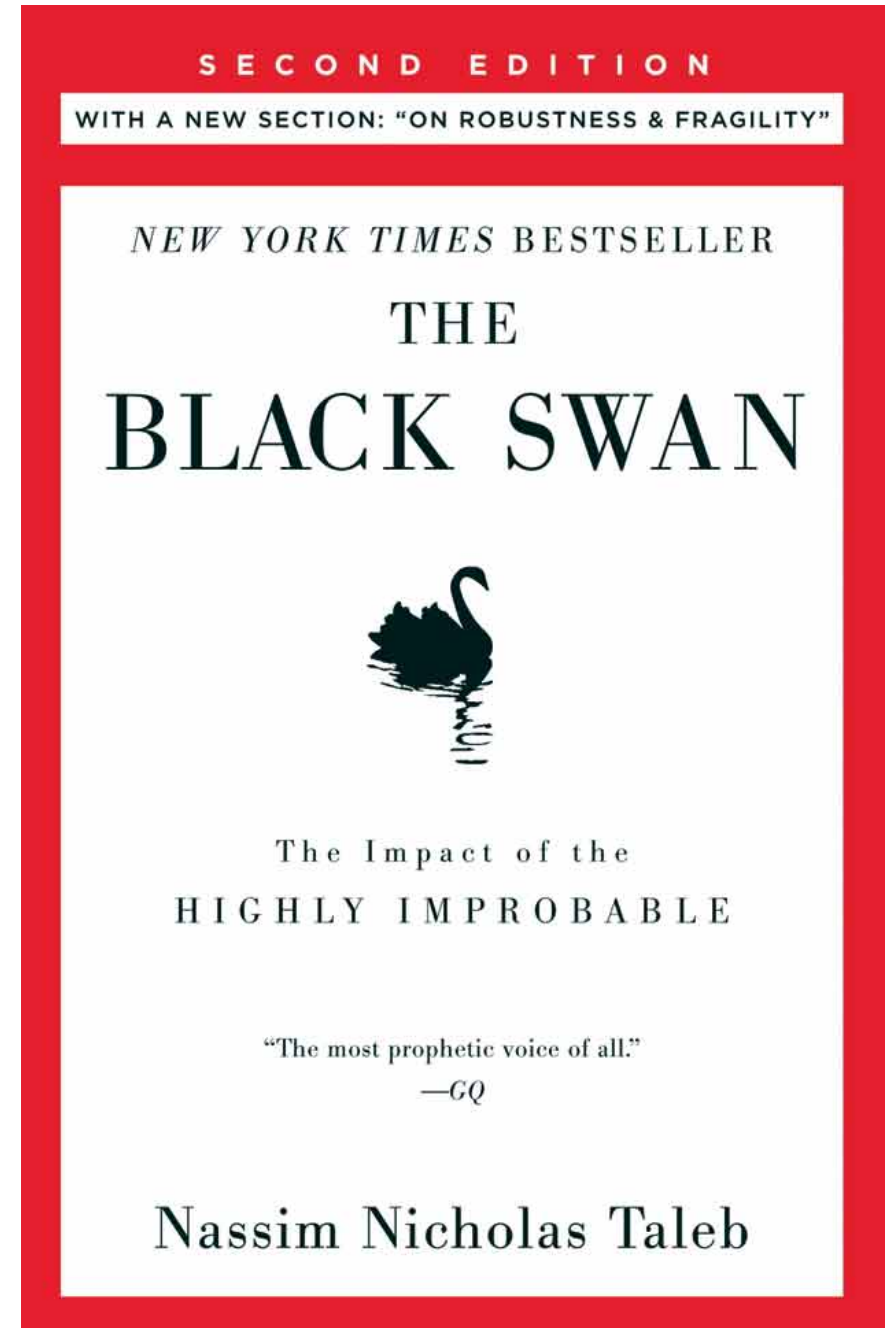
1. personal computers supplanting mainframes,
2. mobile phones replacing hard-wired lines, and
3. subscription streaming services overtaking video rental stores.

[It is a phrase coined in 1995 by Harvard Business School Professor Clayton Christensen](#)



BLACK SWAN EVENTS

- An unexpected surprise that
 - Has a major impact on society
 - “It was bound to happen”
 - Historical significance – may change a civilization’s life style
- Undirected, unpredicted
- Unknown unknowns
- Large Scale, Large Impact, Rare Events (LSLIRE’s)





Is the Coronavirus the Black Swan of 2020?





TOP 2 SUPPLY CHAIN RISKS AMID THE CORONAVIRUS OUTBREAK

- Lockdowns cause labor & supply shortages in factories
 - Workers can't reach factories due to quarantines, temperature & vehicle checks
- Regulatory uncertainty slows the restart of factory operations
 - Chinese manufacturers challenged by different and variable regulations



NEXT 3 SUPPLY CHAIN RISKS AMID THE CORONAVIRUS OUTBREAK

- Public health requirements impact industrial operations via need to apply for permission to reopen
 - Foxconn ok in Zhengzhou but waiting to reopen in Shenzhen
- Chinese suppliers invoking force majeure clauses that shield them from legal and financial liability
- China's provincial border checks aggravate trucking shortage
 - Authorities require drivers to remain 14 days in self-quarantine depending on the truck's license plate & the driver's registered province.





NEXT 3 SUPPLY CHAIN RISKS AMID THE CORONAVIRUS OUTBREAK

- Closed borders delay movement from & to both Vietnam & Hong Kong
 - Export goods from Vietnam are congesting border points as trucks cannot easily cross into China with priority being given to medical and perishable cargo.
- Labor shortage causes congestion at airports and seaports
 - Congestion has started to build at air cargo terminals and warehouses
 - Inbound shipments have not been customs cleared or delivery/pick-up services could not be arranged
- Blank sailings reduce ocean freight capacity out of China
 - Happens when a carrier cancels a scheduled port stop or an entire route



FINAL 2 SUPPLY CHAIN RISKS AMID THE CORONAVIRUS OUTBREAK

- Limited air and rail cargo capacity to increase prices
 - Multitude of passenger & freighter flights cancelled & operations restarting will cause air freight capacity shortages
- Ripple effects felt across global overseas supply chains
 - Auto parts shortage in China and elsewhere caused major auto manufacturers to halt factory operations (ex Hyundai, Kia and Nissan)
 - Friday 2/31/20 Hyundai stopped building the Palisade SUV after a factory worker tested positive for the Coronavirus.

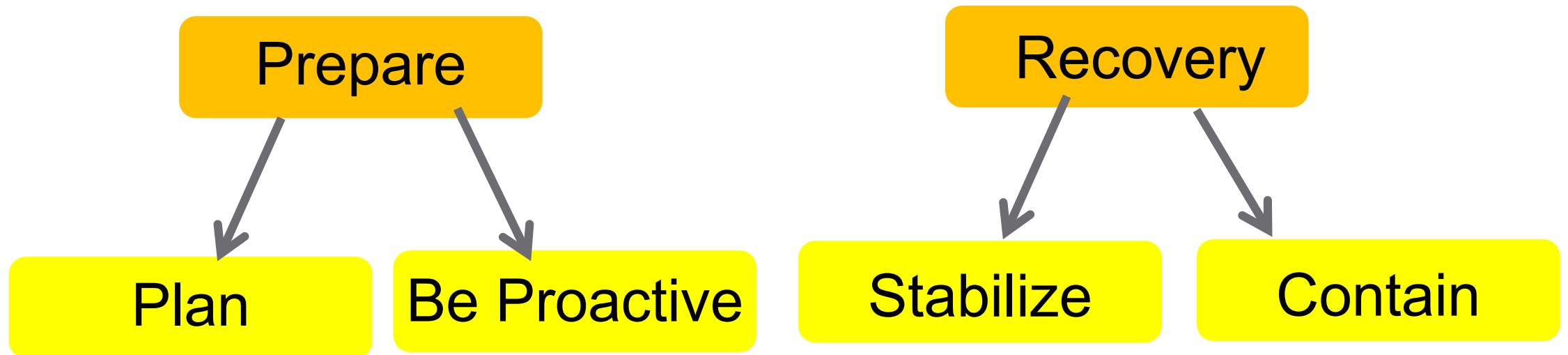


Denton Coronavirus news

- Denton County and city of Denton officials said Thursday 2/27 that they're continuing to monitor reports of the new coronavirus, of which the Center for Disease Prevention says an outbreak in the U.S. is inevitable.
- City of Denton spokesman Ryan Adams said the city is coordinating with the Denton County Public Health department on the virus.
- Denton county's health department has also created a page on their website at <https://bit.ly/32vJI83> to follow up on the coronavirus.

THE ANTIDOTE – RESILIENT SUPPLY CHAIN

Resilience - “the ability of a supply chain to prepare for disruptions, leverage disruption and recover / improve operational capability quickly after disruptions occur” *And readiness to grab market leadership from rivals*





WAYS TO BE PERSONALLY RESILIENT

Taiwan experts recommend:

1) Take a deep breath and hold it for more than 10 seconds. If you complete it successfully without coughing or discomfort, stuffiness, tightness, etc. it is a sign that there is no fibrosis in the lungs, therefore no infection.

2) Do this self-check EVERY morning in an environment with clean air.

Japanese doctors recommend:

3) Everyone should ensure his/her mouth & throat is moist & never dry. Take a few sips of water at least every 15 mins.

Why? Because even if the virus enters your mouth, drinking water or other liquids will wash it down into the stomach where the stomach acids will kill the virus.

4) Wash your hands regularly for 20 seconds using soap & water, or using an alcohol-based sanitizer that contains 60-95% alcohol, to avoid passing the virus (if present) from your hands to the eyes, nose or mouth via direct contact.



Resilience: It's Not About Bouncing Back book by Jennifer Eggers & Cynthia Barlow



Leverage Disruption...it challenges you beyond current capacity & will enable you to

CHANGE FATIGUE

OVERWHELMED

- Do 40 to 50% more with what you have
- Come back stronger & more effective faster
- Progress on complex challenges –engage the people around you
- Stay alive – contain burn out & keep focused

DISENGAGED

HIDDEN AGENDAS

COMPETITION

SOMETHING BIG IS COMING...



Why Is Resilience So Hard?

- Prewrite vs. Rework- don't want to waste time reacting without preparation
- Not even talking about Resilience yet – even though it is the #1 characteristic required of leaders today
- Assume employees are aligned with strategic direction – 70% are unknowingly misaligned
- We expect old school leadership to handle adaptive challenges effectively



Difference between Technical and Adaptive Challenges

Technical

- Understand the problem
- Can be resolved by applying **expertise** and through the organization's **current** structures, procedures & ways of doing things.
- “Better, faster, & cheaper” solutions
- Processes must change



Tell People What to Do

Adaptive

- Never seen before
- No expertise
- Problem may be unclear
- Addressed through changes in people's priorities, beliefs, habits and loyalties (**thinking differently**)
- Hearts and minds must change



**Mobilize People to Solve –
Be a servant leader**



2 Ways to Build Resilience



1. go through a bunch of MUCK and it makes you stronger
2. prepare ahead of time to make sure you're prepared when disruption hits.



2 Ways to Build Resilience



Photo by Oliver Skitterphoto

Preparation fills the tank (of energy) so the reserve is there when you need it.

It is crucial to have a framework in place so that when disruption hits, you are already resilient. And your organization knows what to do !!!!

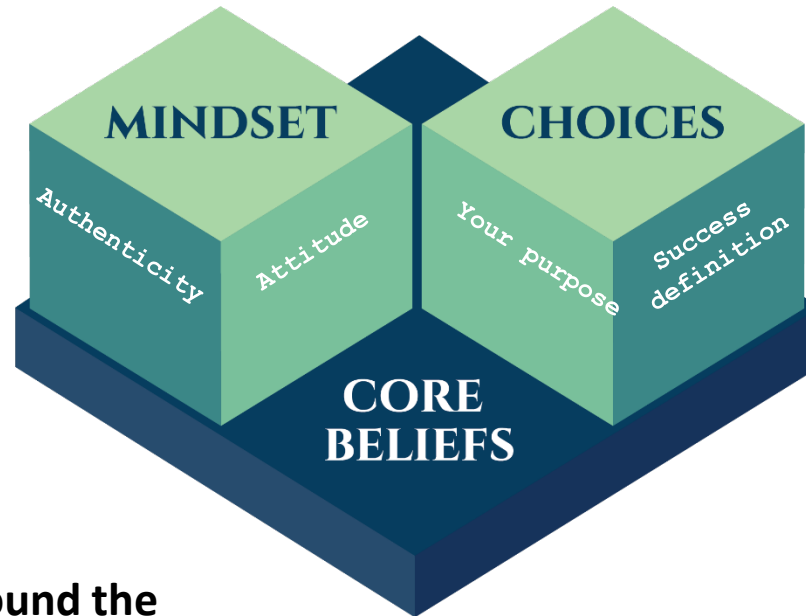
Initial jolt of panic becomes a catalyst.

Teammates become energized instead of hysterical.



Resilience IS A RESULT OF:

Do we have the right
MINDSET for what we
are up against?



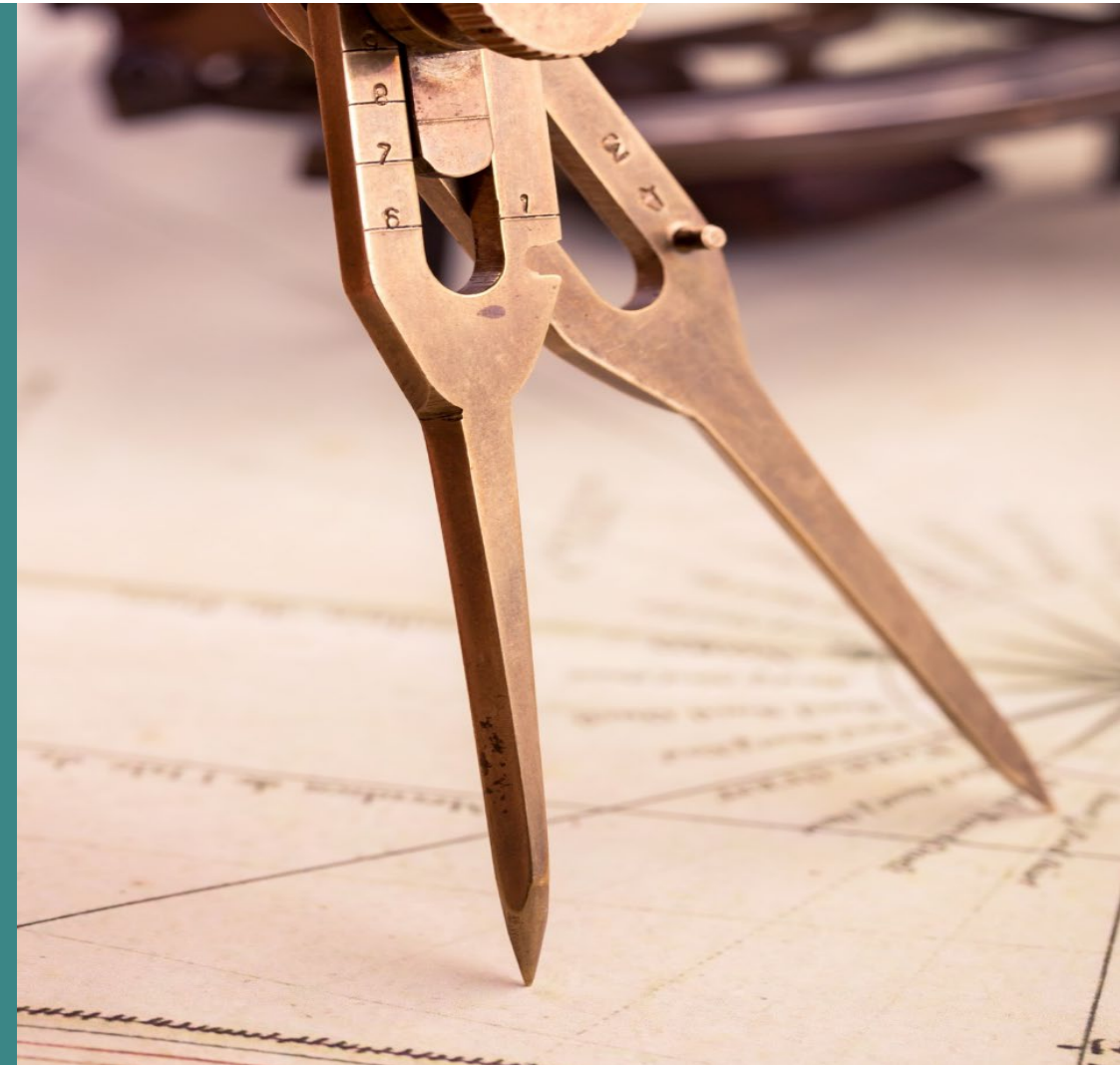
Are we clear on how
the **CHOICES** get
made?

Are we aligned around the
underlying **CORE BELIEFS**?



Why Don't Organizations Invest in Resilience?

- Takes too much time
- They like internal competition
- Costs too much





The Good News



Every day, a shift occurs in the marketplace.

Disruption is inevitable.

Either :

1. Harness / leverage its power and become even more resilient,

OR

2. Let it become something to cope with and resist

By the way, it has nothing to do with Bouncing Back.



Remember These Three Take-aways

If you want to create resilience on your team and drive results in the face of rapid, disruptive change:

1. Know what kind of challenge you are dealing with and the kind of leadership required
2. Create alignment
3. Build your resilience framework before you need it



Closing

Thanks you for your time and attention.

Feel free to connect with us via LinkedIn or via email with :

Michelle Reilly Wright – presenter and APICS North Texas board member –
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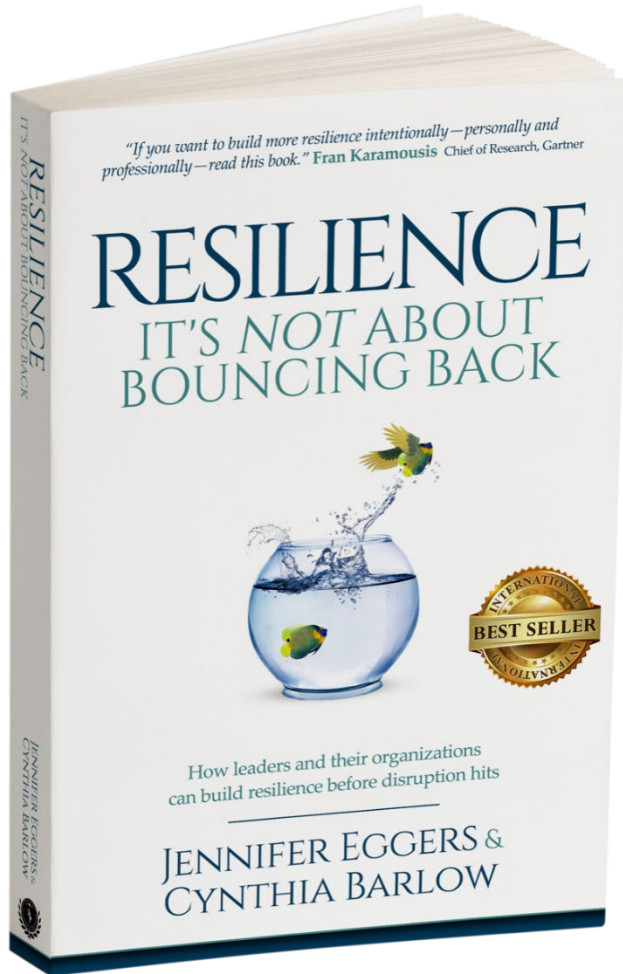
Vince Mozik – VP Education for APICS North Texas – Vince.mozik@gmail.com

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Credits



Jennifer Eggers

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704-560-2289

www.leadershiftinsights.com

<https://leadershiftinsights.com/resilience-book/>



Credits

SUPPLY CHAIN RISK MANAGEMENT 2020

Pat Tarver – CPIM, CSCP, CLTD
6Packed Conference, San Antonio,
January 23, 2020



Other Credits

Slide 20 APCQ HBR.ORG

Slide 26 The Black Swan by Nassim Nicholas Taleb