CRITICAL INSIGHTS FOR INSPIRATIONAL SAFETY LEADERSHIP

NEW RESEARCH REVEALS FOUR KEY ATTRIBUTES OF EFFECTIVE LEADERS

CATERPILLAR®

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EXECUTIVE SUMMARY

OUR VISION: SAFELY HOME. EVERYONE. EVERY DAY.™

We all agree that the very best performance requires safety.

Some of us call safety a *top priority*, others prefer value, but however it's described, the message is unanimous: we don't want to hurt people.

For those in a supervisory position, the onus to keep others safe is tremendous. The CEO at a large construction and material supply company put it this way: "When I look at the hundreds of vehicles in our company parking lot, I realize each one represents a family. Then my responsibility becomes enormous."

Though we agree that safety is important, we vary greatly in our ability to establish, foster and relentlessly pursue a culture that supports our "safety is essential" narrative.

With the Caterpillar Safety Leadership Assessment, individual capacity to lead for safety can now be measured; and with the ability to measure comes the power to improve.

PURPOSE

With the ability to quantify how their approach to safety is perceived by employees, and an understanding of the specific attributes needed to positively influence others' safety performance, leaders have the power to create and sustain a safe workplace.

That premise drove the development of the Caterpillar Safety Leadership Assessment.

Given the emphasis we put on safety, you may be surprised that more than 50% of employees say risks are sometimes overlooked in order to get a job done. Meanwhile, managers say they would never endorse unsafe behavior, regardless of production goals. Understanding that dichotomy requires visibility into the underlying cultural and behavioral norms — what are leaders doing and saying that may be contradicting their intentions?

Further, what does it take to become a leader who has earned the credibility and trust of his/her followers, such that employees believe taking a safe approach is what their leader expects?

51.2% OF EMPLOYEES SAY RISKS ARE SOMETIMES OVERLOOKED IN ORDER TO GET THE JOB DONE.

To answer those questions, a Caterpillar research team drew upon the following sources to gather qualitative and quantitative data:

» Four decades of experiential research from more than 15 safety culture consultants with combined experience of more than 100 years working with organizations in numerous industries

» 20 years of data from the Caterpillar Safety Perception Survey, a statistically validated cultural assessment tool used to reveal perception gaps between employees, supervisors and managers

» Existing public domain research on leadership and safety

» Current leadership assessments, both general and safety-based, available in the public domain

» Published work of more than 150 well-known leadership authors and experts

The result, the Caterpillar Safety Leadership Assessment, is the only statistically validated tool of its kind.

METHODOLOGY

The Caterpillar Safety Leadership Assessment provides an organization a statistically validated method to assess each individual leader's safety leadership capability. It generates metrics on four main domains of safety leadership and 14 elements within the domains. These validated metrics not only enable the individual leaders to understand specifically what their safety leadership strengths and opportunities are, they also provide the organization with a benchmark for overall leadership development and improvement. With this detailed understanding of both personal and organizational safety leadership capability, organizations can build strategic data-based improvement plans to strengthen their leaders' ability to effectively influence employees toward making safe choices in every situation. When that occurs, incident rates decline toward zero and everyone goes home safely every day.

SCORING

The assessment consists of 85 item statements and asks the participant to rate his/ her immediate supervisor's observed performance on a 5-point Likert scale whereby 1 equals *"strongly disagree"* and 5 equals *"strongly agree."* The 85 item statements map to the 14 elements and 4 domains to provide a performance score in each.

The performance score for each of the 14 elements is derived by averaging all participant responses on the item statements that map to each particular element. The domain score is derived by averaging all item statements that map to that domain. An overall score is derived by averaging all item statement scores from all participants.
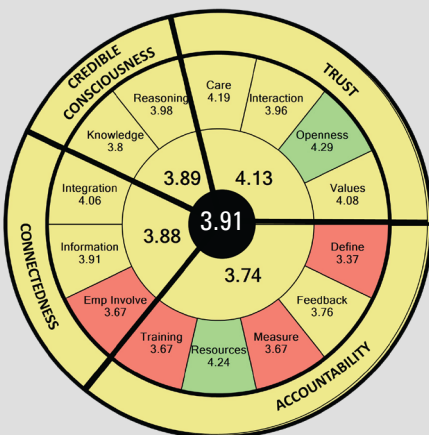
THE ABILITY OF A LEADER TO DRIVE ACCOUNTABILITY IS THE STRONGEST PREDICTOR OF CREATING A SAFE PLACE TO WORK.

PERFORMANCE LEVELS

NEEDS IMMEDIATE ATTENTION
UNDER 3.70

NEEDS IMPROVEMENT
3.70 – 4.20

STRONG PERFORMANCE
OVER 4.20

Positive Perception

A performance score is then compared to a level of performance noted below. The levels of performance are presented in a stoplight format of red, yellow and green.

CHANNELS OF MEASUREMENT

Since safety leadership is demonstrated differently at various levels of the organization, the assessment provides a relevant measurement of safety leader behavior at each level of the following leadership ranks.

- » Top leader takes a self-assessment
- » Executive leaders respond to statements about the top leader
- » Middle managers respond to statements about their executive leader
- » Frontline supervisors respond to statements about their middle manager
- » Employees respond to statements about their frontline leader

To receive a report a leader must have at least three (3) participants provide input. This preserves the anonymity of participants while providing enough data to calculate meaningful metrics.

LEADING INDICATOR METRICS

The assessment also includes 39 yes/no questions requiring participants to rate the level of effectiveness of 6 leading indicator activities common to most organizations – safety meetings, hazard identification and correction, inspections, near miss (close call), incident investigation, and cultural perceptions.
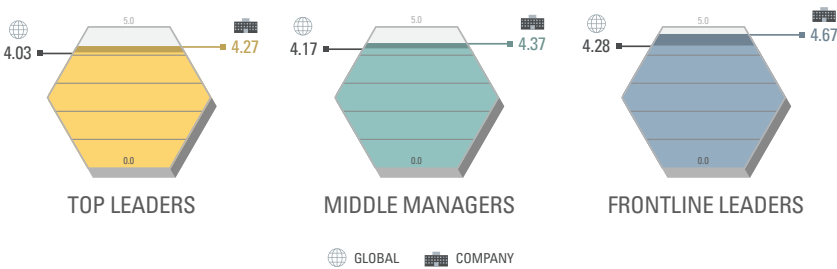
The 39 questions measure positive response (yes answers) as a percentage.
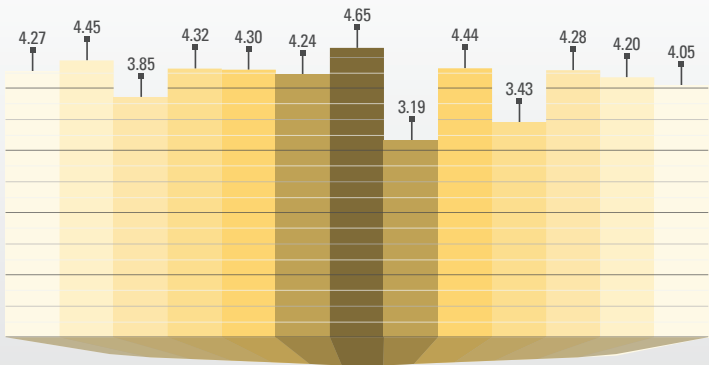
STATISTICAL VALIDATION

Participant responses collected on the 85 item statements were correlated to the 39 leading indicator question responses to determine validity of the instrument. The following statements are true based on that analysis:

» While all 4 domains strongly correlate to positive safety performance, the ability of the leader to drive accountability is the strongest predictor.

» Building trust is the highest predictor of reduced incidents.

» The strongest 3 elements are defined expectations, integrating safety, and sharing information.

» Higher-level leaders generally outperform lower-level leaders.

» When a leader performs well on the 4 domains and 14 elements of this assessment, his/her team produces strong leading indicator performance.

LEADER COMPARISON

4.03 — 5.0 — 4.27	4.17 — 5.0 — 4.37	4.28 — 5.0 — 4.67
0.0	0.0	0.0
TOP LEADERS	MIDDLE MANAGERS	FRONTLINE LEADERS

GLOBAL   COMPANY

LEADER SCORES

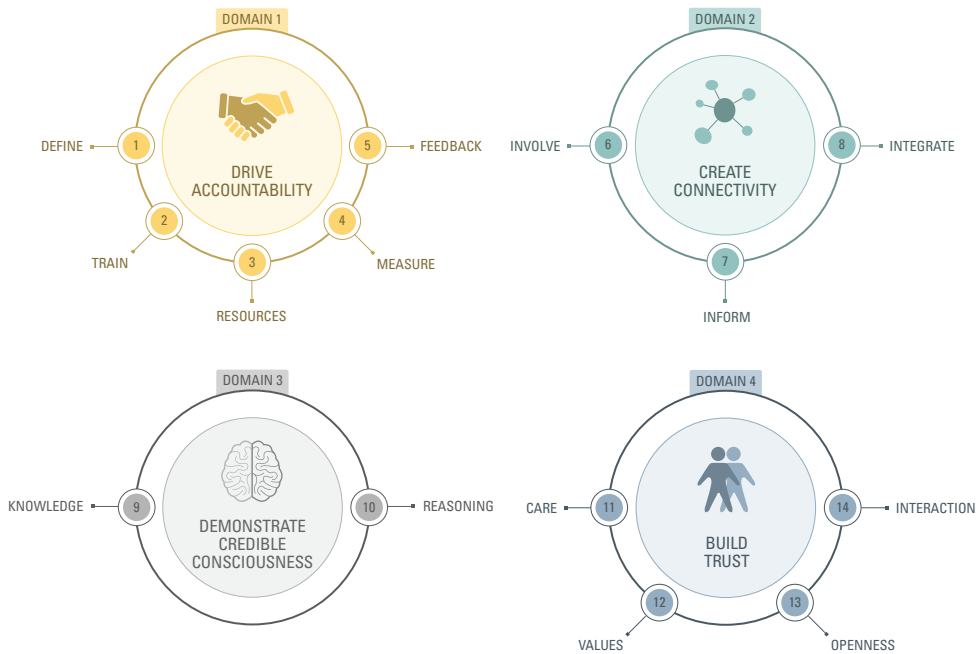4.27 4.45 3.85 4.32 4.30 4.24 4.65 3.19 4.44 3.43 4.28 4.20 4.05

FINDINGS

The research revealed four key safety leadership skills, or domains, with fourteen elements, or sub-skills, within them.

4 DOMAINS & 14 ELEMENTS

DOMAIN 1

DEFINE — 1
5 — FEEDBACK

DRIVE ACCOUNTABILITY

2
4

TRAIN
3
MEASURE

RESOURCES

DOMAIN 2

INVOLVE — 6
8 — INTEGRATE

CREATE CONNECTIVITY

7

INFORM

DOMAIN 3

KNOWLEDGE — 9
10 — REASONING

DEMONSTRATE CREDIBLE CONSCIOUSNESS

DOMAIN 4

CARE — 11
14 — INTERACTION

BUILD TRUST

12
13

VALUES
OPENNESS

The assessment provides statistically validated metrics on all domains and elements for the individual leader, and for the organization in total.

DOMAIN #1 DRIVE ACCOUNTABILITY

Does the leader create a strong culture of safety accountability?

Do direct reports clearly understand what's expected of them to keep themselves and others safe?

Does the leader provide relevant training and follow up to ensure direct reports are executing safely?

Does the leader provide necessary resources to work safely?

Do direct reports receive appropriate feedback?

Accountability is accepting responsibility for and providing satisfactory explanations of one's own actions and deeds. Leaders can either hold their subordinates accountable for the expected work or they can create an environment in which others take accountability for their work. When employees take accountability for their work, they do what's expected of them with a high degree of accuracy while requiring very little intervention from the leader.

DOMAIN #2 CREATE CONNECTIVITY

Does the leader effectively integrate safety into the business operation?

Are employees involved in the safety process?

Are all direct reports kept informed of all pertinent safety information?

Connectivity involves integrating safety into the business operation. When a leader creates connectivity, everyone on the team understands that an effective business operation is a safe operation.

DOMAIN #3: CREDIBLE CONSCIOUSNESS

Do others view the leader as a credible safety leader?

Does the leader demonstrate to others he/she know what it takes to keep everyone safe?

Does the leader make wise choices and decisions that create a safe place for everyone to work?

Credible safety consciousness is believable, reliable and convincing awareness and understanding of what it takes to be safe. When a leader demonstrates credible safety consciousness, it is apparent to others that he/she understands the safety processes within the team, has the necessary information to make informed safety decisions, effectively appraises risks where they exist, internalizes safety concepts and applies them personally, and continually learns and grows in his/her ability to lead a culture of safety excellence.

DOMAIN #4: BUILD TRUST

Do direct reports think the leader truly cares about their safety?

Is the leader accessible and available for others to discuss safety concerns?

Does the leader foster an environment of transparency and free-flowing communication?

Do others trust the leader to choose safe actions?

Safety leadership is all about building relationships. The way to build strong relationships is by building trust. Trust is distinct and unquestioning belief in and reliance on the integrity, strength, ability and surety of a person or thing. Trust involves authenticity, integrity, genuineness, transparency and sincerity.

When a leader builds high trust, others believe he/she has their best interests at heart. Strong leaders keep their commitments, talk straight, listen well, are real and genuine, and get results.

BUILDING TRUST IS THE HIGHEST PREDICTOR OF REDUCED INCIDENTS.

LEADING INDICATORS

There are two basic categories of safety measurement – leading indicators and lagging indicators. Across the world, organizations focus most often on the lagging indicators of safety measurement because they are easier to measure. The problem is that the lagging indicator of Recordable Injury Frequency (RIF) does not always tell an accurate story about the health and quality of the safety culture. It's possible to have a low RIF number without the true presence of safety in the organization. This assessment measures the true presence of safety using leading indicator activities.

Leading indicator performance is measured from the participants' perspective. Do employees at all levels believe the leading indicator activities in their organization actually produce a safer place to work? The Safety Leadership Assessment rates the effectiveness of 6 leading indicator activities common to most organizations:

> STRONG SAFETY LEADERSHIP HAS NOW BEEN PROVEN TO CREATE A SAFER PLACE TO WORK.

#5 INCIDENT INVESTIGATION	#3 INSPECTIONS	#1 SAFETY MEETINGS
61% 67%	71% 82%	84% 86%

#4 NEAR MISS	#2 HAZARD IDENTIFICATION AND CORRECTION	#6 CULTURAL PERCEPTIONS
71% 78%	80% 85%	95% 93%

▲ AVERAGE SCORE   ⊕ GLOBAL SCORE

The 39 questions measure positive response (yes answers) as a percentage.

The findings have provided the first ever statistically validated results of exactly what it takes to lead others to work most safely. Stated even more plainly, strong safety leadership creates a safer place to work.

CONCLUSION

We know that leadership significantly impacts the choices and behaviors of employees, and thus leadership behavior has a strong influence on safety. Until now, however, we were not able to measure the critical few leadership behaviors that have the most impact.

With this new leadership-based safety model developed by Caterpillar, we now have a statistically valid approach to assessing and improving safety leadership. When a leader drives accountability, creates connectivity, demonstrates credible consciousness and builds trust, safety excellence is the result and everyone goes home safe every day.

USING THE SAFETY LEADERSHIP ASSESSMENT TO IMPROVE SAFETY LEADERSHIP CAPABILITY

Caterpillar Safety Services offers the Safety Leadership Assessment in both electronic and paper forms. Included in the purchase of the assessment is an onsite report-out for top leadership to provide interpretation of the results and build a strategy for both individual and organizational leadership improvement plans. Caterpillar also offers follow-up coaching and training to help leaders improve their safety leadership capability.

"LEADERS MUST LEARN THEY HAVE TO DO THINGS ON A REGULAR BASIS TO DEVELOP THE CULTURE THAT PRODUCES SAFE BEHAVIORS."

– DAN PETERSEN, ED.D.

CATERPILLAR SAFETY SERVICES PHILOSOPHY

Caterpillar believes in the importance of safety and we want our customers to arrive Safely home. Everyone. Every day.™ This requires safe and reliable equipment, well-trained operators, properly designed job sites and a commitment to safety throughout the organization. Wherever you are in your safety journey, Caterpillar Safety Services is committed to providing you the tools, resources and knowledge to develop a sustainable culture of safety excellence.

For more information email safetyservices@cat.com or call:

USA: 1 866 963 3551 | Outside US: 1 309 494 2751

Additional resource material can be found at: CAT.COM/SAFETY

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