

For Boeing, the old corporate navigation charts no longer suffice

By John Pourdehnad, Larry M. Starr and John Bailie



Once revered as the pinnacle of aerospace excellence worldwide, Boeing has faced many significant challenges, tarnishing its once-impeccable reputation. Still responding to two 737 MAX crashes that killed 346 people and rightly grounded their airplanes between March 2019 and December 2020, new failures have emerged. In January, a door plug blew out of a crowded Alaska Air flight – a 737 MAX 9 – producing a hole in the middle of the cabin. Worse, at least 10 incidents have been reported, including Boeing planes with "stuck" rudder pedals, an engine with flames shooting out of it midair, and a tire falling off after takeoff.

The dominance of Boeing in the aerospace industry has long been acknowledged, yet, it's becoming increasingly difficult to ignore these distressing reports. Compounding the pressure on Boeing's market standing, its foremost competitor, the European-owned Airbus, has been steadily increasing its market share over Boeing.

Amidst these complexities, the current problem-solving approach seems to heavily rely on linear thinking and causal relationships, which may not effectively address the multifaceted nature of the issues at hand. It's ironic that such an approach proves inadequate when dealing with intricate systems. This inadequacy has been underscored by the use of the "Swiss Cheese Model" for understanding and managing hazards.

According to this metaphor, barriers, represented as slices of cheese stacked together, may serve as defenses against risks, threats, and hazards. However, akin to Swiss cheese, holes can emerge in these slices in various locations and numbers, representing shortcomings or failures. The critical quality control strategy, analogous to Hans Brinker plugging the hole in the dam, is to prevent a flood of failure by identifying and closing each hole.

The analysis of airline accidents through this model emphasizes the need for a nuanced understanding of failure because, in the original theory, four sequential barrier levels can exist: organizational factors, unsafe supervision, preconditions, and unsafe acts, each with its own vulnerabilities.

While the quality of work remains crucial, a second challenge for Boeing and others lies in recognizing that the quality of work life is also a crucial factor that should not be overlooked as a contributor to aerospace safety. As management theorist Russell L. Ackoff pointed out, focusing solely on quality control neglects the human dimension of work. Indeed, quality of work life is a complex concept with many interdependent elements including perceived security and safety, engagement and trust that influence and are influenced by measures of productivity. The implication is the need for a holistic approach to safety, research and development, manufacturing, aftermarket, and overall strategy that prioritizes creating environments where employees can thrive and find fulfillment.

This perspective resonates with the principles of Total Quality Management (TQM), which emphasize continuous improvement, customer satisfaction, and the importance of employee involvement and satisfaction.

In this volatile, uncertain, complex, and ambiguous (VUCA) environment, organizations find traditional management and leadership approaches inadequate. Top-down control and a linear mindset aim for predictability in an increasingly turbulent world that now defies such expectations. Reducing and dichotomizing the crisis at Boeing into engineering versus business and profitability is the wrong formulation. The crisis at Boeing isn't just a crisis of a single leader or the influence of a single culture. The old corporate navigation charts no longer suffice; the context has fundamentally shifted.

What is needed is a shift from viewing the organization as a "machine of production or profit" to perceiving Boeing as a complex adaptive system shaped by interconnectedness and relationships.

An organization's success hinges not only on the excellence of its products or services but also on the quality of work life experienced by employees. Moreover, a recent anonymous published survey indicated that 56% of Boeing employees reported they feel burned out at work, and those in the design, operations and product divisions rated happiness and corporate culture between C- and D, respectively.

The paradigm shift within organizations is undeniable: Individuals are no longer perceived as mere interchangeable components but rather as unique entities brimming with limitless potential. Processes, once rigid and inflexible, have transformed into adaptable guidelines aligned with the organization's overarching mission, empowering both individuals and teams to unleash their creativity in task accomplishment. Traditional hierarchical structures are gradually giving way to networks of interconnected individuals and teams, fostering fluid boundaries and nurturing open, responsive systems.

In embracing this forward-thinking mindset, organizations serve as platforms and ecosystems for "communities of interconnected nodes" united in pursuit of a higher purpose. Here, the organization's *raison d'être* transcends the narrow pursuit of shareholder value. There exist exemplary organizations that not only demonstrate the feasibility but also the remarkable success of this approach.

Boeing finds itself amidst a myriad of challenges and possibilities. While historically renowned for its exceptional aircraft designs, Boeing must now endeavor to craft an organization that reflects the same greatness attributed to its name and history.

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