EDITORIAL by FABRIZIO PERRETTI*

On Disasters the Bell Tolls for Everyone

The point is not to find a single culprit, but to ensure that everyone knows their role

Every time disasters or accidents traceable to human activities occur, certain questions inevitably follow: why did the accident happen? Who is responsible? What must be done to make sure it doesn't happen again? Two recent events have brought attention to these questions, and invite some reflections. Let's start from the beginning.

The first regards two airplane crashes - first in Indonesia (October 29, 2018) and then in Ethiopia (March 10, 2019) - that involved the giant American company Boeing and its 737 Max 8 model. Following these accidents, many countries and airlines decided to prohibit and suspend the use of that plane, and in various cases, to cancel existing purchase orders. Boeing suffered negative consequences for both its reputation, and its business. For the 346 victims of the two disasters and their families it was certainly a tragedy. Whose fault was it? We are certainly not in a position, nor do we have the technical skills, to answer that question. Spe-

* ***Fabrizio Perretti*** *is the Director of* E&M *and Professor of Corporate Strategy at the Bocconi University.*

cifically, the "accusations" and attention have focused not on potential errors by the pilots, but on errors in the design of the flight software and the respective sensors. The various investigation commissions will establish each party's responsibility in the future. What is interesting for us, is to understand the context in which the potential errors led to these accidents occurred.

Various journalistic investigations have shown that Boeing's entire 737 Max project took place in an external context of intense competition with its rival Airbus, and that this generated an internal organizational climate of extreme pressure to reach the goals set **(1)**. When in 2011, Boeing learned that American Airlines intended to order hundreds of new low fuel consuming airplanes from its rival Airbus, it attempted to react. Instead of building a new model (a process which would have required about ten years), the U.S. company decided to update the existing 737 model, attempting to limit the changes with respect to the previous versions so as to avoid the need for airlines to spend millions of dollars for additional pilot training.

© ISTOCK - RUDALL30

The 737 Max project took off quickly, and the first aircraft was delivered within five years. In the attempt to make up ground with respect to Airbus, the speed of work on the 737 Max – according to accounts given by current and past Boeing employees – became frenetic. Faced with short deadlines and limited and restrictive budgets, the engineers were asked to submit projects and technical designs in very short times compared to normal work rhythms (about half as long). When any engineers left the project, the managers were forced to replace them rapidly with other personnel from different divisions

Many people involved in the construction, testing, and approval of the software system described an approach based on watertight compartments, each of which concentrated on a small part of the plane. The process was thus left without a broader vision, and with incomplete information and erroneous assumptions, many people ended up making critical – and ultimately dangerous – decisions that influenced the design, certification, and training in regard to the plane.

The public prosecutors and regulatory authorities are determining whether the effort to design, produce, and certify the 737 Max model was overhasty, leading Boeing to underestimate crucial risks for safety and the need for new pilot training. If so, that would indicate errors in part inherent in the complexity of the project, in addition to the organizational architecture decisions determined by conditions of external rivalry and heavy competitive pressure on times and costs; a highly dangerous mix that would turn out to be a true time bomb.

According to some journalistic accounts, it was not only a question of a poorly designed organizational structure, in which despite being

subject to intense pressure, the personnel did not realize it was making mistakes. In various cases there is testimony from managers who stated that they were pushed to compensate for delays and that employees were subject to reprisals for having pointed out problems or violations. In this case, it would not be a system that was unaware of its limits and errors, but one that dangerously decided to cover them up **(2)**.

This brings us to the second event, mentioned at the beginning of the article: the recent television miniseries *Chernobyl*, produced by HBO and Sky, to critical acclaim. The television series tells of the dramatic events around the nuclear explosion at Chernobyl in April 1986, the disaster that ensued, and the attempts to cover up or minimize information on the accident. Despite the evident differences – Chernobyl took place in the communist Soviet Union and not in the American capitalist system, in a state-run nuclear plant and not in an enterprise competing on a global market – there are many analogies between the contexts and organizational dynamics of the two events. In the last episode of the series, which attempts to shed light on the chain of errors that provoked the accident, it is stressed that in a context of rivalry between two global powers, the pressure to adopt a reactor model (which also had military uses) that was cheaper, but also much less safe, together with the need to meet a quick delivery and test schedule – to which the career prospects of various people were in turn linked – created the conditions for the disaster that took place.

In both cases we see systems that, in addition to being subject to intense external pressure, were characterized by internal dynamics of power – including some that were invisible – that were similarly hierarchical and coercive. Indeed, however open organizations may be, there are never simply technical systems for the coordination of activities. There are always "bureaucracies" in a Weberian sense, i.e. systems of power, privilege, and dominion **(3)**, but not necessarily of responsibility. Different grades of intensity certainly exist, but they do not change their essential nature.

So who is responsible for these disasters? Is it the companies or organizations that, as Diane Vaughan highlighted in her study on the explosion of the Challenger **(4)**, are characterized by the so-called "normalization of deviation", i.e. of a culture that, if adopted, almost unconsciously pushes people to follow increasingly risky conduct and practices leading them towards a catastrophe? Or is it outside subjects – clients or rivals – that *de facto* force companies to adopt such deviant behavior? Or could it possibly be both, and thus "everyone", which means saying "nobody", as in the famous novel by Agatha Christie *And Then There Were None*, in which all of the possible suspects die and nobody seems guilty?

The point is not to find a single culprit, but to ensure that each person recognizes their own role and social and moral responsibilities for

the choices that follow. In many cases this is not simple. Behind tragic events there is often the "banality of evil" that Hannah Arendt described in the case of the Shoah and that scholars of management have observed in the case of companies **(*5*)**. This means that there are also decisions by people in good faith, unaware of the significance of their actions. It is important to remember this, as it is important for organizations to give everyone who sees a problem the possibility to raise their hand, whistle, sound the alarm, and if necessary, even stop the whole process. But this requires courage, not only by the individuals, but above all by the companies.

In one scene, from *Chernobyl*, the two protagonists responsible for resolving the emergency must find three volunteers for a very risky mission, which could even be suicidal: enter a highly radioactive environment, close to the exploded reactor, in order to open some valves so as to prevent an even worse disaster. One of them – the scientist – describes the situation to a group of technicians and workers, saying that each volunteer will receive a very high annual salary and career promotions. Seeing the doubts among the group, the other individual – the politician – intervenes to say that the volunteers should do it simply because it needs to be done, because otherwise millions of people will die and because nobody else can do it. They will volunteer not to obtain individual benefits, but because it is the right thing to do, because it is what they have always fought for, and every generation must be ready to sacrifice for the collective good. After this speech, three hands go up in the room.

This is a screenplay, of course, but it shows an important point: financial incentives are not needed (or shouldn't be needed) to do the right thing and be courageous. In *The Betrothed*, Don Abbondio says that "If someone doesn't have courage, he can't give it to himself". Maybe it's true, he can't get it himself, especially if left alone. This is why companies, and all organizations in general, should adopt a collective perspective and assume their own responsibilities, not only in the case of errors, but above all to avoid them. As John Donne once wrote in a famous verse: no man is an island, but part of the whole. Let us not ask for whom the bell tolls; it tolls for each one of us, and it tolls for businesses as well.

© ISTOCK - RUDALI30

(1) *"Boeing was 'go, go, go' to beat Airbus with the 737 Max"*, The New York Times, *23/3/2019*.
(2) *"Claims of shoddy production draw scrutiny to a second Boeing jet"*, The New York Times, *20/4/2019*.
(3) *See "Burocratismo", in M. Weber*, Economia e Società: Dominio, *Rome, Donzelli, 2012*.
(4) *D. Vaughan*, The Challenger Launch Decision: Risky Technology, Culture, and Deviance at NASA, *Chicago-London, University of Chicago Press, 1996*.
(5) *See R. Jackall*, Moral Mazes: The World of Corporate Managers, *Oxford, Oxford University Press, 2009*.