# 5 Quality Failures that Shook the World

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| Quality assurance, control and management are key pillars of business stability and success.  Failure to adhere to these principles can lead to cataclysmic and indeed tragic consequences, as these five events reveal.  **#1 Global financial crisis – ‘the biggest quality failure of all time’**  How do you even begin to dissect the myriad of events leading up to the global financial crisis?  2010 film ‘Inside Job’ provides a starting point. It paints a backdrop of unscrupulous Wall Street banking, laissez-faire regulators, and credit rating agencies and investors failing to price the risk of mortgage-related financial products. |  | [http://www.processexcellencenetwork.com/images/article_images/small/banking%20crisis_EditorialUseONLYCREDIT%20REQUIRED.jpg](javascript:ShowLargerImageWindowName('banking%20crisis_EditorialUseONLYCREDIT%20REQUIRED','/article_images/large/banking%20crisis_EditorialUseONLYCREDIT%20REQUIRED.jpg'))  ***Was the banking crisis a failure of quality?*** |

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But it’s Paul Moore, former head of group regulatory risk at HBOS (part of the Lloyds Banking Group since 2009), who provides an explanation straight from the horse’s mouth. Moore was dismissed from his role in 2004, after he warned senior executives of the perils of excessive risk-taking. Five years later, HBOS was one of the UK’s most high-profile victims of the credit crunch, requiring a takeover and billions of pounds in government bailout money to stay afloat.   Moore was the only senior risk and compliance executive in the UK banking sector to speak out publicly, and dubs the crisis ‘the biggest quality failure of all time.’

It was during his time at American Express as head of compliance that Moore was charged with implementing total quality management – a project that saw him compete for the Baldridge award. He theorised that if the financial sector thought in terms of quality rather than risk, compliance or governance, and positioned culture and people above processes and structure, the events leading up to the crisis could have been avoided.  Stringent governance processes mean nothing, Moore argues, if they are ‘carried out in a culture of greed, unethical behaviour and an indisposition to challenge.’

Moore points to the mis-selling of pensions, endowment, home income plans, precipice bonds, interest rate swaps and PPI as examples of unethical behaviour. He draws parallels with the manufacturing industry, likening the devastating effects intangible financial promises had on consumer health and sentiment to the quality failures associated with a faulty brake or tyre.

**#2 1986 Challenger Space Shuttle explosion**

On January 28, 1986, the NASA Shuttle Challenger exploded minutes after take-off, resulting in the tragic death of all seven astronauts on board. The hardware failure of a solid rocket booster (SRB) ‘O’ ring was cited as the immediate, mechanical cause, but human culpability lay with the decision-making process behind the launch.

In an [extensive report](http://dssresources.com/cases/spaceshuttlechallenger/index.html), Jeff Forest from the Metropolitan State College points to a flawed Group Decision Support System (GDSS), which misrepresented risk and failed to communicate concerns surrounding quality assurance.

Thiokol, the subcontractor behind the supply of the ‘O’ rings, warned NASA of the potentially adverse effects of cold temperature on the ‘O’ rings performance a day before launch. Engineers conceded that the database behind the ‘O’ rings quality testing programme could be corrupted, and recommended waiting till outside air temperatures reached 53®F before proceeding with launch.

This was met by outrage amongst NASA officials, who were wary of the political and financial repercussions of another delay. It was at this point that Thiokol ended a video live-link so officials could confer amongst themselves. The Thiokol chief engineer was told to put his ‘management, not engineering cap on,’ and five minutes later, the supplier re-joined the GDSS and ratified the launch.

Forest blames the sacrifice of ‘social and ethical decision making,’ which would have observed quality and safety concerns expressed by Thiokol engineers, for the ‘sake of cost, schedule and outside environmental demands.’

**#3 Thalidomide withdrawn for causing birth defects**

The case of anti-nausea and sedative drug thalidomide, which helped negate the symptoms of women suffering from morning sickness, represented a watershed moment in the establishment of quality frameworks for pharmaceutical drug development.

Thalidomide, launched by German company Grunenthal, was sold from 1957 until 1962. It was withdrawn after being identified as a teratogen by Australian obstetrician William McBride and German paediatrician Widukind Lenz, which can cause numerous birth defects.

In total, 10,000 children across 46 countries were born with deformities which included the malformation of limbs and internal organs. More recent estimates put the number of victims worldwide closer to 20,000. The withdrawal of thalidomide prompted concerted efforts to prevent teratogenicity, and an appraisal of the clinical trials process.

**#4 2010 BP Deepwater Horizon explosion and oil spill**

The explosion of BP’s Deepwater Horizon rig on April 20th, 2010 ranks as the biggest manmade environmental disaster in US history. The explosion killed 11 on-board workers, and discharged 4 million barrels of oil into the Gulf of Mexico, before the leak was sealed on July 15th 2010. On top of widespread damage to Gulf marine wildlife and tourism industries, BP faced a slew of lawsuits, and forked out over $4.5 billion in fines and payments.

The overarching cause was a quality management failure. Contractors did not test the weak cement around the oil well, which failed to contain hydrocarbons within the reservoir and allowed flammable gas and liquids to flow up the production casing. Technicians misinterpreted fluid pressure tests, and gas passed through the ventilation system into the engine room, paving the way for ignition. After the explosion, the oil rig’s blow-out preventer located on the sea-bed failed to activate and seal the well.

Three corporations were implicated: BP for the flawed well design, Transocean as the owners of the rig, and Halliburton as the contractor who provided the bungled cements. Derek Park at Oil and Gas IQ offers a [comprehensive review of the trial](http://www.oilandgasiq.com/columnists/people-are-the-missing-ingredient/).

**#5 The Ford Pinto revs, and quite possibly blows, up**

In response to competition from Japanese imports, Ford released the Pinto in 1971 – a populist automotive icon that looked to capture consumer hearts with its $2,000 price-tag.

The Pinto’s aesthetic quality was always in question. In 1977, however, lawsuits emerged on the back of allegations of a structural design fault. The fuel tank was understood to be in close proximity to the rear bumper and rear axle, meaning that rear-end collisions would elevate the risk of fires.

Ford’s decision to recall 1.4 million units in 1978 saved no face, as investigate journalist Mark Dowie revealed that Ford had been aware of the design flaw during production.  He published a cost-benefit analysis document that saw Ford compare the cost of $11 per-vehicle repairs with the cost of settlements for deaths, injuries and burnouts.

The subcompact car was decommissioned in 1980, but the vehicle has been the source of historical discourse. Revisionists point to the success of selling 3 million units, and claim that fresh examinations of incident data rank the Pinto as safe, or safer than, cars in the same class. Regardless, Ford’s callous cost-benefit analysis left a legacy of crooked corporate culture.

And there are many more, even from the vaunted Japanese quality practitioners and pioneers in quality!!!!!!!!!!!!!