

Lessons from Volkswagen

By

Ramki

PKF S&S LLP

3 Oct 15

Then and Now!

- On Jul 28, 15 the headlines screamed:
 - **VW surpasses Toyota as world's largest automaker in first half of 2015**
- In Sep 15 we hear about the
 - **'Diesel gate' or 'Diesel Dupe' scandal**
- What a fall!
- A golden case study on 'Tone at the top' and 'Greed'

Greed

- As always it was greed which was behind this scandal too
- Martin Winterkorn CEO announced four years ago -VW would triple the sales in USA in a decade!
- And they would become world no.1 replacing Toyota -which they did.
- But how!

How did it come out?

- 32 year old Dr Arvind Thiruvengadam from Chennai , India, an Assistant professor at the West Virginia Center for Alternative fuels, engines and emissions (CAFEE) went for a 2400 mile trip with his colleague Marc Besch in Mar 2013 to test a rented VW Passat
- The emission was 5-20 times higher than European standards!
- Another test with VW Jetta revealed even higher differences!
- That led to a full blown investigation!
- Initially it was **denial** –VW said ‘They did not know what they were doing!’
- On Sep 3 Company admitted to the scam!

What did VW do?

- Installed software in 11 Million diesel cars that cheated on emission tests to pass the strict US standards (stricter than Europe)
- This means they showed the cars had caused much less pollution than really was the case
- By disabling the controls over emissions the cars were able to
 - get better mileage and thus helped VW push sales up
 - Avoid costly pollution control systems

How did they do it?

- A beautiful, elegant ploy! (almost admirable, except for what it did!)
- A small insertion in the millions of lines of code which the regulators found out after laborious checking
- "A subroutine, or parallel set of instructions, was secretly being sent by the computer to what seemed to be the emissions controls"
- In simple English, this means that when being tested for emissions the system worked beautifully; otherwise it went on belching smoke!
 - Imagine the consequence of such stealth codes in this world of IOT where everything is connected!

Fall out

- Huge damage to reputation
- Martin Winterkorn resigned
- A management overhaul
- Possible penalties of upto \$18B in value (@ maximum of \$37500 per non compliant vehicle)
- Shares declined 34% - 25B Euros vanished into the thick polluted air!
- Recall of cars across the world
- A hit to the German pride

Effect on health

- The chemicals like Nitrogen oxides and in warm climates Ground level Ozone which the cars spewed out, have serious consequences for the health of men especially the old and those having Asthma like condition
- Can lead to respiratory, cardio vascular diseases and even premature death.
- Did the Company not consider these?
- The environmental costs could be in Billions.

Not the first time!

- As early as 2007 they adopted their own internal system to check pollution control and disbanded the system developed by Benz and Bosch
- This is not the first time they have cheated!
 - In 1973 they were caught cheating on emission by installing a device and fined \$120,000!
 - In 1998 they had reached a settlement of \$1B for using similar software that cheated on emissions!

Internal audit/Whistle blower

- Internal audit in VW in 2011 showed problems with engines
- But no action taken!
- A Governance failure!
- So they did **know!**
- Also software supplier Bosch had warned VW not to use the software

Riding the tiger

- Most frauds start small and then balloon so big, nothing can be done
- As Ramalinga Raju of Satyam said, you start riding the tiger, there is no going back.
- The problem could have been an incremental thing;
- initially the problem may be was small and company thought they could correct it and then it went down the slippery dark path of no return..

The 8 Years mystery

- Many scams of the world have taken 7-8 years to come to surface
- Is there something here?
- How did a Fortune 500 company listed in US (ADR), UK and Germany with many employees around the globe, cheat regulators, Governments, auto experts and the whole wide world for 8 years?

No criminal prosecution?

- The Clean Air Act 1970 prescribes criminal penalties for power plants and other *fixed* sources of pollution but only civil penalties for *moving* sources of pollution!

What's on now?

- An investigation by the German supervisory board (could take months)
- Investigation by U.S law firm Jones Day
- VW has set apart \$7.2B towards cost of the scam
- By Oct 7, 2015 VW has to come out with a plan of action to the German Federal Motor Transport Authority
- Michael Horn, head of VW America will testify before a congressional oversight panel about the scandal on Oct. 8
- Debt products issued by Volkswagen are under review by the European Central Bank.
- Apart from USA, UK, Switzerland (has temporarily banned diesel vehicle sales), Italy, France, South Korea, Canada, Norway and India are investigating

Next steps- where do we go from here?

- VW will refit 11M vehicles –huge business for companies which service VW cars!
- Possible drop in diesel car sales (already low in USA)
- VW sales could take a beating-though there are no immediate indications of this- *after* the scandal US sales increased for VW cars as customers expected and got huge discounts!
- The software codes in cars (ever increasing) will become subject to audit
- Clean Air act could be amended to prescribe criminal action for auto companies too.
- Do we need a ‘digital due diligence’ in companies? (and in M&A)
- Starting 2017 car makers in Europe would have to test vehicles on the road also (not only in labs)
- Consumers/Regulators testing emissions using apps on the road could become the norm

What do they say now?

- "We've totally screwed up," -
VW America Chief
- "(We have) broken the trust of
our customers and the public"-
VW Ex-CEO

IS IT THE TIP OF THE ICEBERG?

- One of the World's biggest independent motoring organizations states:
- Many major car makers have exceeded the European Emission norms for Nitrogen Oxide.
- In UK alone 10 diesel vehicles of various car makers are affected.

Why do leaders not learn?

- Dr Fred Kiel study of CEO's:
 - High Integrity CEO's have a multi year return of 9.4% V 1.9% for low integrity CEOs
- Still why do CEO's go after short term results and short cuts?!

Warren Buffet

- “Look for three things in a person: Intelligence, energy and integrity. If they do not have the last one, do not even bother”

Lessons–VW scandal

- Common thread between many frauds
 - Greed and the never ending push to be the best and biggest at any cost
 - Suppression of internal whistle blowing; turning a blind eye
 - The riding the tiger effect- all frauds start small and in the hope that it can be 'corrected' in the near future and then become out of control- Resist the temptation to mount the tiger
 - Failing to realise that you cannot cheat all the people all the time
 - Companies which have a history of cheating may continue to cheat –a cheat gene exists?
 - Reputation built over decades can be lost in a few moments.
 - People never learn from past mistakes!

Sources

- As Volkswagen Pushed to Be No. 1, Ambitions Fueled a Scandal - The New York Times
- How Much Is A Leader's Integrity Worth__ Dr. Travis Bradberry _ LinkedIn
- Assessing the Human Toll of Volkswagen's Diesel Deception - The New York Times
- VW warned not to cheat on diesel emissions in 2007, suppressed internal 2011 whistleblower _ ExtremeTech
- Report_ 2.1 million Audis worldwide affected by Dieselgate

Sources contd.

- VW Scandal Shows a Need for More Tech, Not Less - The New York Times
- Loophole in 1970 Clean Air Act may prevent criminal prosecution of VW _ ExtremeTech
- Is VW's Fraud the End of Large-Scale Corporate Deception
- Volkswagen says emission scandal investigations to take months _ Reuters
- Volkswagen's appalling clean diesel scandal, explained – Vox
- The Fallout from the VW Diesel Scandal – News – Car and Driver _ Car and Driver Blog

Sources contd.

- Volkswagen_ The scandal explained - BBC News
- Volkswagen emissions scandal_ More carmakers implicated as tests reveal pollution levels of popular diesels _ Business News _ News _ The Independent
- Volkswagen recalls up to 110,000 cars in Ireland over diesel emissions scandal - BelfastTelegraph.co.uk
- Volkswagen-Audi U.S. Sales Climb 6.3% Amid Diesel Scandal - Bloomberg Business

Sources contd.

- How Many Billions Will Volkswagen Have to Pay_ -- The Motley Fool
- Volkswagen scandal_ how it unfolded - volkswagen _ IOL Beta
- VW scandal_ Company warned over test cheating years ago - BBC News
- Volkswagen emissions scandal_ Switzerland bans sale of some models _ Business _ The Guardian
- The Indian-origin scientist who took a test drive, exposed VW _ business _ Hindustan Times