

Volkswagen Emission Scandal and Corporate Social Responsibility - A Case Study

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Abstract

Corporate social responsibility plays a high-profile role in today's competitive market and any unethical behavior done by a corporate leads to objectionable consequences. These consequences often have influence on businesses activity in a negative way. The purpose of this study is to examine the relationship between the social responsibility of an organization and three variables: the stock market of the organization, the financial performance of the organization, and the reputation index by the organization set during the scandal.

The study was carried out on the latest corporate social responsibility related scandal escalated in the Volkswagen corporation, known as "Diesel gate" or the emission scandal. While other authors have analyzed this scandal by focusing on one variable, we concentrated on integrating the general picture of key issues. By studying the quantitative data from 2013 to 2016, the research evidenced that unethical behavior of well prominent company unfold negative effect on the corporate's stock price, financial performance and reputation as well.

Keywords: scandal, Volkswagen, Corporate Social Responsibility, Diesel gate.

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Introduction

Every business faces malfunctioning processes in its system but not all failures have the same weight on consequences. Nowadays, Corporate Social Responsibility (CSR) related lapses, especially in prominent ones, draw self-attention and often implicate a scandal. These scandals could cause damages for business in various ways. Most common manifests itself in decrease of reputation, sales shrinkage, stock prices plunge etc. The damage that is done to a business brand mostly affect the loss of reputation with all of the high reputation bonuses alongside, including customers loyalty, stakeholders' promotion, customers' affection and determination to buy a product from the particular brand.

The paper reveals the importance of CRS to a business and exposes the subsequences from a qualitative and quantitative perspective. On this basis, the approach is based on a case study of the Volkswagen (VW) emission scandal. In 2007, VW represented the "Strategy 2018" in which company included essential aspiration to become number one in the auto industry. It covered business commitment in both economical and ecological perspective. VW took responsibility for supporting fuel efficiency and minimizing harmful emission in their vehicles. However, it was done using dishonest approach. In 2015 the Environmental Protection Agency (EPA) confirmed that VW has been using the software attached to the control device concealed the true amount of nitrogen oxide. After this announcement, VW faced "Dieselgate" scandal and the "Strategy 2018" became unattainable.

The vehicles' software was programmed to pass testing performed by the EPA. Cars with this software pollute NOx at up to 40 times the federal maximum on the road. When this news hit the society, Volkswagen has tried to portray this software as a mistake that slipped through corporate cracks. EPA found that "Diesel gate" scandal had an impact on 84,391 cars. However, later VW admitted they were cheating on emission testing. They started to pay charges and compensations for car owners. The damage to company's reputation was already done and despite the fact that VW admitted their illegality, stock prices fell and still has not recovered to their peak in 2015.

The purpose of this article is to determine the damage to VW sales, reputation and stock price that was caused by company's social irresponsibility. Full details of how the VW social irresponsibility actions affected market data and reputation are discovered in this paper.

1. Literature Review

First of all, it is essential to understand the importance of CSR. The idea of CSR that large corporations can be cajoled into paying employees better, being more environmentally responsible, improving labor conditions in developing countries, retaining more American workers, embracing diversity, and donating money to fix innercity schools (Chatterji & Listokin, 2007). While the European Commission defines Social Responsibility as "the responsibility of enterprise for their impact on society" by "following the law, integrating social, environmental, ethical, consumer, and human rights concerns into their business strategy and operations". All these components lead to "risk management, cost savings, access to capital, customer relationship and human resource management" (European Commission, 2017).

Most researchers state that CSR can lead to revenue increases. Revenue increases from higher sales and market share can be achieved indirectly through an improved brand image or directly e.g., by CSR-driven product or market development (Weber, 2008). That is the reason why some corporations using strategic CSR that is a subset of such behavior and includes direct initiatives, such as investing in environmentally friendly operations that reduce emissions and lower costs, and indirect methods like targeted charitable giving that could increase brand reputation and customer loyalty (Chatterji & Listokin, 2007). There is still a limited understanding of whether and how CSR affects financial outcomes of the firm, such as its market value (Xueming & Bhattacharya, 2006). Specifically, companies may generate different (i.e., positive, nonsignificant, and negative) market returns from CSR under different conditions. Drawing on various theoretical bases, we argue that firms that have better insideout corporate abilities (i.e., product quality and innovativeness) to begin with tend to generate more market value from outside-in strategic initiatives (i.e., CSR programs). Conversely, firms that exhibit poorer corporate abilities may find that CSR actually harms customer satisfaction and, because of the lowered satisfaction, decreases stock performance (Xueming & Bhattacharya, 2006).

Negative news about CSR companies also likely grabs people's attention to a greater extent than crises involving companies with no CSR visibility (Catherine, Sanker, & CB, 2014). While Catherine, Sanker, & CB (2014) found that consumers blamed the company more when the crisis involved a company with a negative CSR record as opposed to a company with a positive or no CSR record. Furthermore, corporate social irresponsibility makes a negative influence as a chain effect on the other companies belonging to the same industry and network of the culpable firms (Mocciaro Li Destri, 2013). Destri (2013) also discovered that social capital trust destruction has long-lasting effects and is reconstructed slowly.

The overall logic is that CSR (e.g., philanthropy) increases the trustworthiness of a firm and so strengthens relationships with important stakeholders (e.g., increases employee satisfaction), which decreases transaction costs and so leads to financial gain (e.g., decreased employee turnover, more eager talent pool, union avoidance) (Barnett, 2007). We extend the literature by analyzing Volkswagen emission scandal that are the doings of corporate social irresponsibility.

2. Method

The aim of our research is to determine relationships between the VW emission scandal and CSR. We investigated how social irresponsible behavior influenced corporate's performance from revelatory statistical evidences. Our work is based on quantitative data obtained via corporate financial reports and market data as well. In this study, we draw attention to the latest data, as detailed below:

- stock market data of the latest 2014-2016 period, including such factors as stock price, capitalization, trade volume via Bloomberg Terminal;
- content analysis on three sustainability reports of the VW Group, covering 2014–2016, to obtain an overall picture of the sustainability commitments made by the company in the period before and after the emissions scandal;
- changes of reputation indices in 2014–2016 as a measurement of corporate social performance.

3. Results

In order to explore the consequences of the VW emission scandal we provide results based of three variables: the stock market of the corporate, the financial performance of the organization, and the reputation index by the organization, in three different subsections.

3.1. Stock market reaction to VW's emission scandal

After the EPA's announcement that VW cheated on emissions tests (2015 September 18th) VW's stock price immediately fell 19% (from €162.4 to €132.20) over one night. The day after, in September 21th after VW confirmed that 11 million diesel cars worldwide include "defeat device" the stock price decreased again by 20% (from €132.20 to €106) in September 22nd. Shareholders reacted shortly to the news about the scandal and by their actions have been apparently shown on the stock price plunged to € 92.36 in October 2nd. In total, the VW's emission scandal cost more than 75% corporate's stock value and hit its lowest records since 2011. After the emission scandal was relieved the volume of the VW's stock trading significantly increased as well. VW's stocks were traded unexpectedly more than 4 times higher levels for three business days. Further trading volume has been rather active for more than a month as investors followed all the information related to the scandal.

Respectively, this amount of trading also had an impact on the VW's stock price decreasing. In the first quarter of 2016, stock prices have been volatile based on the company's news (see Fig. 1). This scandal denied the myth that corporate profit and dividends are the most important objects to the company's shareholders, while social factors have no influence.



Figure 1. VW historical stock price graph

Source: Bloomberg L.P.

VW's emissions scandal was not only confined consequences solely. Due to suspicions and distrust caused by VW, manufacturers of other car brand have also been included in additional testing for any deceitful acts. The Kraftfahrt-Bundesamt (KBA), which is the motor vehicle regulator in Germany, is conducting tests on cars built by BMW, Fiat, Ford, Mercedes, Nissan, Toyota, and others, as well as no less than 12 VW Group models (Hull, 2015). This made all auto industry shareholders pay attention to the situation. It caused the possibility that other car makers may be involved. Comparing the largest automobile manufacturers stock price movements with each other, the loss of confidence in car manufactures affected other automotive companies' by 2-4% loss in the stock prices. In Figure 2, we see that the VW scandal has had a significant impact on both the Ford, Toyota and General Motors companies (major rivals).



Figure 2. VW (blue shadow) historical stock price graph compared to Ford (orange), Toyota (blue), General Motors (red) stock prices

Source: Bloomberg L.P.

The drop in stock prices of the major auto industry companies clearly shows that after the VW confession, all market participants were suspected and that was the reason why investors were trying to sell out stocks of other car companies. VW has also lost its power in competition with other car brands. VW brand has become not that important as it was before, this came out in VW's market share lost. In 2014 VW took 12.41% market share, one year later – 12.04% and in 2016 market share decreased to 11.35% (Demandt, 2017). These numbers reveal how the loss of customers trusts could influence the size of the market share.



Figure 3. Volkswagen Group (orange line) historical stock price comparing with DAX index (blue line)

Source: Bloomberg L.P.

The price of VW stocks had more than 3% weighting in the German DAX index in 2015. Figure 3 expose that the German DAX index (yellow line) strongly correlates with VW stock prices (blue line). As the Volkswagen stock price went up, the DAX index also rose. However, after the scandal, Volkswagen's stock fell below the DAX index, falling at the same time as the index itself. This means that the VW scandal also significantly reduced the value of the DAX index (Boyle, C. 2015).

3.2. Impact of emission scandal on the corporate's financial performance

Financial results were affected by scandal too. In the end of 2015 VW's profit transformed into loss as a consequence of all charges for governments and compensations VW committed to pay for its' customers. However, the number of sold vehicles did not decrease as much as it was expected. After the scandal was relieved sales of all VW models decreased to 136,345 units by 3.5% in October 2015 compared to the previous year same month. Next month sales reached 133,201 units, increased by 0.4% compared to November 2014.

By the end of 2015, sales of vehicles increased 1.78% compared to December 2014. 2015 was the year when VW approximately sold 1,700,000 vehicles, that was 5.51% annual growth (see Table 1).

Table 1. VW sold vehicles, units

	2014	2014-2015 change, %	2015	2015-2016 change, %	2016
VW Sold vehicles	1.610.505	5,51%	1.699.221	-0,27%	1.694.645

Source: made by the authors using data from <http://carsalesbase.com/>.

In 2016, VW did not sell that many vehicles as in 2015, the number approximately reached 1.694.000 vehicles and it was 0.27% decrease. The first quarter of 2016 was worse than it was in 2015, counting only sold units. The 2017 started optimistically – the number of sold units in the first quarter was higher than it was in 2016 (Demandt, 2017). However, the second quarter the number of sold vehicles decreased compared to 2016. The 2017 may not be the recover-year. By summing up three quarters of 2017 results we can see that number of sold units decreased about 2% compared to 2016 and 1.9% comparing to 2015 (see Fig. 4) (Demandt, 2017).

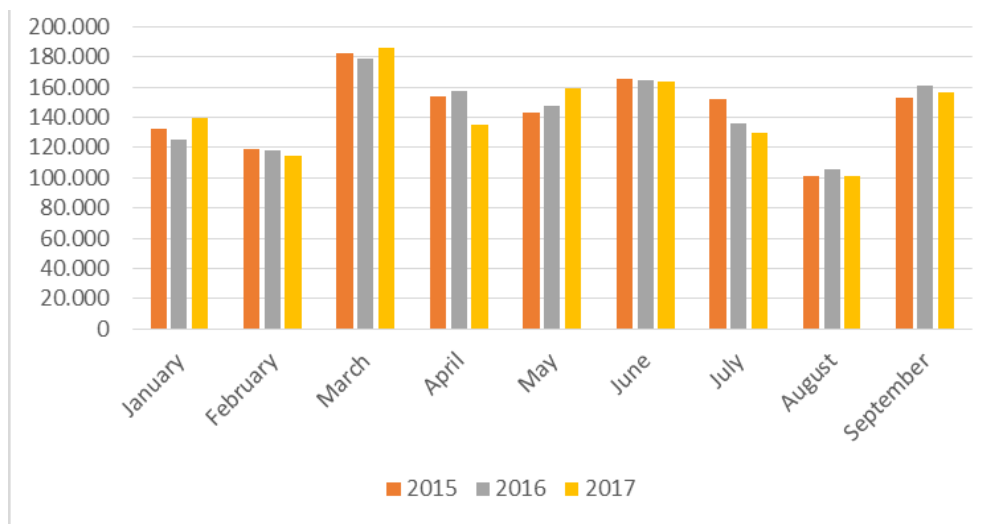


Figure 4. VW sold vehicles, units

Source: made by the authors using data from <http://carsalesbase.com/>.

Although the fall of sold units was not that significant, the company does not show any growth. By incapability of growing sold units, number VW group does not reach major profit as well. Investors are not willing to pay price for the stock they were willing to pay in 2015 September. This is a consequence of lower expectations. Investors notice that number of sold units is not growing as profit as well. VW group lost investors trust and cannot state that the company is demonstrating growth. There are the reasons why the stock price is not getting that high as it was in 2015 September.

VW cheated on emission test because they thought that this is the way they can get more money. When the scandal was made public VW realized that they will not get more money, opposite, they will have to pay the losses for customers and pay fines for governments. In 2016, VW made its \$10 billion buyback program. VW made the possibility for diesel car owners to sell vehicles for VW for between \$12,500 and \$44,000 depending on the model, age, trim and region. For those who did not want to sell the car received compensation of between \$5,100 and \$10,000. In 2017, VW announced \$1.2 billion program. Owners of 2009-2012 Audi Q7 and Volkswagen Touareg models with the Generation 1 engine are capable of buybacks between \$24,755 and \$57,157 (Atiyeh, 2017). It is calculated that “Diesel gate” scandal has already cost the company around \$30 billion.

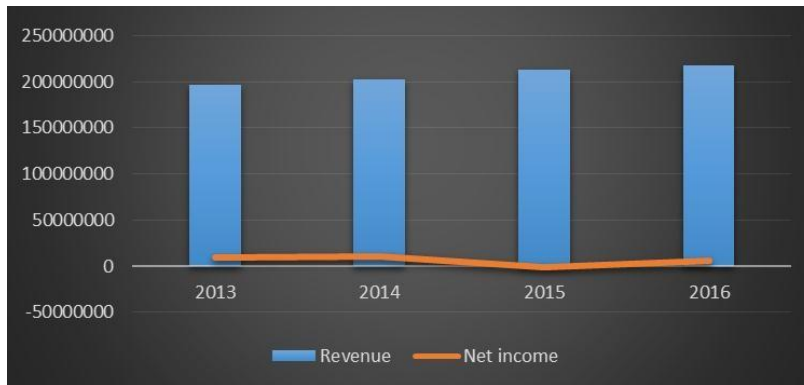


Figure 5. Volkswagen's Total Revenue and Net Income in thousands USD

Source: made by the authors using data from www.finance.yahoo.com.

Figure 4 reveal alteration of VW's annual revenue and net income in 2013 – 2016. Revenue did not decrease as substantial as net income did. VW sold very analogous number of vehicles after the scandal comparing to 2014.

This lead to revenue growth, even though not that significant as it could be expected before "Diesel gate". Net income was affected more than revenue. VW has to pay charges and compensations what had impact to net income decrease. In 2015 – when the scandal hit the society – net income was negative first time in many years. In 2016, net income was positive, although amounted only half of what was earned before scandal. Figure 4 reveals the CRS scandal impact to its financial performance.

3.3. Impact of the scandal on the corporate's reputation

The VW "Diesel gate" scandal has enormous influence on its brand reputation. VW reputation can be measured by some indexes or lists. "Interbrand" organizes Best Global Brand list every year. They involve companies in a list only if the brand is truly global, has successfully transcended geographic and cultural boundaries. In measurable terms, to be truly global brand requires that at least 30% of revenue has to come from outside of the company's home region. Also, the brand must have a significant presence in Asia, Europe and North America as well as a broad geographic coverage in emerging markets ("Interbrand", 2017). What is more, company's economic profit must be positive over the longer term, delivering a return above the company's cost of capital. Finally, to be listed in Best Global Brand, the company must have a public profile and awareness across the major economies of the world. While ranking, "Interbrand" focuses on financial analysis (profits and margins), the role of brand and brand strength. According to "Interbrand", in 2014 VW was involved in Best Global Brand list and took 31st place while 2017 company was ranked in 40th position. Lower place in a list shows that brand is not that strong like it was before the scandal, the company does not make so much profit as it does before the scandal and the role of the brand is not that important. The decrease of taken place in Best Global Brand list reveals fall of brand importance in the international area.

Another ranking company is Reputation Institute. It ranks companies by their reputation in RepTrak list every year. RepTrak is the gold standard for reputation measurement (Reputation Institute, 2017), showing how society views the world's best-known companies, examining 15 stakeholder groups in more than 25 industries and more than 50 countries for more than 7000 companies (Reputation Institute, 2017). According to reputation institute, reputation is an emotional bond that ensures that people should buy particular brand products or services and recommend the company. Investors should support company with great reputation and employees of the company should be aligned and deliver on company's strategy. Reputation institute in "Global CSR RepTrak 100" category valuated VW company in a 7th position in 2014 and in 100th position in 2017. The major reason for this fall is the scandal that emphasizes social irresponsibility. It also reveals that some customers are no longer loyal to this brand, many of them would not recommend VW group to others. It shows that investors do not trust in the company as they trusted before the scandal. Moreover, VW has been suspended from London Stock Exchange's FTSE4Good index series after "Diesel gate" scandal for minimum 2 years. According to FTSE Russell, being in the FTSE4Good index means being well managing with environmental, social and government risk comparing to others. This index helps investor integrate ethical consideration into their decision making. Being suspended from this index reveals a public distrust of VW social responsibility. Some investors may not want to invest their money in the company that is not valuated as a well managing

with environmental, social and government risk. Also, suspension shows that VW brand is no longer a high-reputation brand in the international area.

Conclusions

The overview of scientific literature evidence, that CSR plays an important role in business, especially for well prominent corporates. Any deceptive manipulations actions related to strategic CSR entails adversely consequences.

For several decades, the VW automobile group has been rated one of the most promising companies in the world and the largest automotive manufacturer in the Europe. Since its inception, the company has been reputed and valued for its quality and reliability. VW has been firmly committed to the "Strategy 2018" and has successfully achieved its goals. However, findings suggest that VW emission scandal had different impact on all three variables investigated in this paper.

First, the scandal took a sharp fall in stock prices – in less than a month stock price lost its value by 75%. With the fall of VW's stock price, the value of the DAX index also dropped, with corresponding parallel effects being felt in other car dealers' stocks prices cuts.

Therefore, the study relieved that corporate's reputation also had a sensitive reaction to such scandals. VW has not only lost its high position in rankings but also was suspended from FTSE4Good index.

Finally, less sensitive variable was related to the corporate's financial performances. The number of vehicles sold changed insignificantly and the revenue slightly increased in the past years after the scandal. In 2015, only profit was negative because of all fines VW had paid.

Based on these facts, the study proves that there is a strong connection between corporate CSR strategy and business further activities and more sensitive variables are those which corporate do not have an ability to control in the set of critical times (stock price, reputation).

Recommendations

Through the lenses of consumers and investors, the company should be more transparent to accomplishing its CSR strategy. However, when the company gets into the scandal related to CSR there are three basic steps every company should accomplish to regenerate its reputation. The first step is to assume responsibility for inability to handle the situation better and admit that they made a mistake. The second should lead to know-how strategy and is all about learning from mistakes to be less vulnerable in the future when dealing the scandal. The third action is about being more open to humanity and to announce publicly actions that were made to resolve the situation. VW should regenerate its brand name by rebuilding environment-friendly commitments. Also, company should reaffirm commitments to the environment with more transparency and responsibility in its action rather than statements.

List of abbreviations

CSR – Corporate Social Responsibility

VW – Volkswagen (company)

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