The VW Diesel Scandal:
A Case of Corporate Commissioned Greenwashing

***Timothy W. Aurand**
Northern Illinois University

Wayne Finley
Northern Illinois University

Vijaykumar Krishnan
Northern Illinois University

Ursula Y. Sullivan
Northern Illinois University

Jackson Abresch
Northern Illinois University

Jordyn Bowen
Northern Illinois University

Michael Rackauskas
Northern Illinois University

Rage Thomas
Northern Illinois University

Jakob Willkomm
Northern Illinois University

Few corporate scandals involving greenwashing are more blatant and laden with disregard for the environment and a firm's own consumer base than Volkswagen's (VW) recent Dieselgate. Employing both decoupling and attention deflection greenwashing tactics, VW attempted to mislead millions of unsuspecting auto owners in an attempt to position itself as one of the world's "greenest" auto manufacturers. The following case outlines many of the managerial tactics employed by VW, the impact these actions had on corporate performance, the financial penalties incurred, and the corporate culture that made it all possible.

INTRODUCTION

Corporate Social Responsibility (CSR) espouses green marketing and the need for ethical ecological conduct of companies (Nyilasy, et al. 2014; Dahlstrom, 2010). It is apparent that greater environmental pressures and information asymmetry create strong incentives for firms to adopt policies and programs that might improve their environmental performance (Berrone, et al., 2017). Most organizations clearly understand the importance of acting in a socially responsible manner, with the impact of such actions affecting not only the planet, but the bottom line. Since the 1960s there has been a substantial increase in both the corporate concern for and the promotion of environmentally responsible and environmental legitimacy (Nyilasy, et al. 2014; Easterling et al., 1996). The movement came to the forefront of research in the late 2000s following a surge in green advertising that nearly tripled between 2006 and 2009 (Parguel, et al., 2015; Terrachoice, 2009). This practice is so common that a 2011 study found that green promotions have increased nearly tenfold in the previous 20 years, and has almost tripled since 2006 (Kleinman, 2016).

The increased emphasis on green initiatives by corporations is based in large part on market demand. Numerous polls have illustrated consumers' growing need for environmentally friendly products, which has prompted many in the business community to increase their spending on green communications (Parguel, et al., 2015). However, producers have not always been able to produce an adequate supply to meet the demand for green products and services, thus resulting in their unethical promotional initiatives and distrust on the part of consumers. It appears, then, that while green marketing is growing in importance, the phenomenon of greenwashing is becoming increasingly prevalent. (Nyilasy, et al. 2014)

Greenwashing is often defined as a gap between the symbolic and substantive action taken by a company in order to gain an environmentally-friendly image (Prasad & Holzinger, 2013). The term unifies the concept of "green" – as in environmentally friendly – and "whitewash" – as in covering up or concealing defects (Martin & Schouten, 2012). The practice of greenwashing appears more common as firms attempt to better position themselves in a global marketplace growing more concerned with corporate sustainability.

Greenwashing could merely be considered puffery or spin. (Martin & Schouten, 2012), but it is the consequences of greenwashing which set it apart. Whereas puffery and spin are used to simply inflate the image of a company's products and services, greenwashing is deliberately deceptive and can lead to a negative impact on society. Greenwashing is frequently symbolic, can deflect attention to an organization's less important issues, and lead to "green talk", which is language aimed at meeting stakeholder requirements in terms of sustainability, but without legitimate corporate action (Siano, et al., 2017). And while greenwashing is admittedly misleading, many argue that it also contributes to slowing the worldwide movement towards sustainable consumption by discouraging the sincere efforts of companies to go green when others use window dressing communication (Cherry and Sneirson, 2011). In the end, greenwashing may guide truly conscious consumers toward non-optimal choices (Chen and Chang, 2013; Gillespie, 2008).

Regardless of corporate intentions, the most important ramification of greenwashing may be its long-term impact on consumers' perceptions of companies. The market can suspect corporate greenwashing when it is absent by objective criteria, and vice versa. When a firm engages in greenwashing but people do not perceive it as such, the firm may not face any negative consequences. However, when people suspect greenwashing a range of detrimental consequences may occur including consumer protest, boycotts, and financial loss for the company (de Vries, et al., 2015; Polonsky, 1995; Polonsky and Rosenberger, 2001)

To avoid the risk of being accused of greenwashing, some companies are taking the lead by being transparent and explaining their environmental footprint. Firms in danger of greenwashing can look to Patagonia and its Footprint Chronicles portal for an example of how to transparently communicate sustainable actions. The portal allows consumers to trace the impact of Patagonia products along each step of the supply chain. In full disclosure, Patagonia shares 'the bad,' 'the good' and 'what they think'

(an environmental cost-benefit analysis and information about how they will improve) (Delmas and Burbano, 2016).

However, not all companies are justly rewarded for being environmentally conscious. As recognized by Easterling et al. (1996), organizations that claim to be sustainable are often subject to closer scrutiny from government, their competitors, and consumers (Nyilasy, et al., 2014). It appears that firms must carefully scrutinize what they are willing to share regarding their environmentally conscious actions and those that they admit can be potentially damaging to the environment.

Simply put, far too many consumers are skeptical of firms which profess to protect the environment and fail to demonstrate their intentions in actions (Nyilasy, et al., 2014). And while green initiatives can reflect positively on an organization, the ramifications of greenwashing can be severe. People easily suspect that even though firms profess an environmentally conscious motive, the firm is actually and primarily interested in enhancing the corporate image, eliciting publicity, and satisfying its customers. Suspicion of such strategic behavior can lead people to view corporations as insincere (Campbell and Kirmani, 2000), or even deceitful (Chan et al., 2006). In short, people may regard the communication of environmental motives as rhetoric rather than reality (de Vries, et al., 2015)

As this case demonstrates, in the mid-2000s, VW began a campaign to foster a corporate image centered around sustainability. Despite this concerted effort to present an eco-friendly image via its product offerings and marketing communications, the actions taken by VW and its production of diesel-powered cars were far from green, and its corporate culture promoted actions that were clearly unethical. Volkswagen made widespread and ambitious statements in reports which expressed the organization's desire to position itself as a leader in environmental sustainability; specifically, the reduction in CO2 emissions that would make the company the world's most environmentally compatible automaker by 2018 (Siano, et al., 2017).

The deceptive manipulation adopted by VW was at least a reputation damaging endeavor (Gatzert, 2015**;** Siano et al., 2017). Understanding and recognizing this new type of greenwashing facilitates a more conscious assessment of reputation risk in organizations and can contribute to management countermeasures (Siano et al., 2017). At best, VW's CSR communication has been accused of being manipulative and insincere (Laufer, 2003), without any real connection to concrete action (Siano, et al., 2017). Volkswagen's 'Think Blue' campaign of 2011 "bears witness to our holistic understanding of sustainability," said Jonathan Browning, CEO of the Volkswagen Group of America (Kurylko, 2011). At its worst, VW was committed to producing vehicles that polluted at levels far exceeding legal standards while defrauding stakeholders.

The following case provides insights into a corporate culture that embodied both decoupling and attention-deflecting greenwashing practices. Decoupling exists when a firm claims to fulfill market and stakeholder expectations without modifying corporate practices, and deflection occurs when a firm utilizes misleading written texts and/or visual imagery (Siano, et al., 2017; Cliath, 2007; Cervellon, 2013). By employing such tactics VW had hoped to position itself as a truly socially responsible entity, while in realty it fostered a rigid corporate culture focused primarily upon corporate sales and financial goals with total disregard for the environment and its own stakeholders.

Greenwashig at Volkswagen: Creating the Image

While the rest of the auto market stressed improved fuel economy for traditional gasoline-powered vehicles and hybrids in the early 2000s, Volkswagen instead placed significantly more emphasis on its diesel engine technology. In 2005, VW CEO Ferdinand Piëch set his sights on the US market. While VW had a noteworthy 19% share in Western Europe, VW controlled only 2% of the US market. With rising fuel prices and public concern over climate change, VW was poised to claim stake to a significant market share in the world's largest auto market through its diesel technology (Smith & Parloff, 2016). Also in 2005, VW, in an attempt to create a greener image in the European market and promote the sales of its diesel automobiles, launched an advertising campaign with the slogan, "Those who drive cars carry a great responsibility, but those that make them even more so" (VW Touts…, 2007). Here one can see VW implementing one of its first attention-deflection green washing tactics. Although there is no clear

evidence to show that VW was intending to deceive its stakeholders at that time, the slogan never lived up to the company's claim and subsequent actions were undertaken by VW to cheat EPA emission requirements in their diesel engines. Later that same year, VW began its foray into the US diesel market with its *Dieselution Tour,* a campaign intended to publicize its new line of high-efficiency diesel automobiles and to educate the public on the environmental advantages of diesel technology (Bernstein, 2007).

In May of 2011, Volkswagen rolled out its "Think Blue" marketing campaign. . The purpose of the "Think Blue" was to, "encourage eco-friendly mobility and progressive ideas for responsible action in everyday life" (Volkswagen Rolls Out, 2011). From the beginning of "Think Blue" it seemed like VW was sincere and fully invested in sustainability as demonstrated by some of its PR. For example, in its Think Blue literature it said:

> "At Volkswagen, we not only have a responsibility to our customers - we have a responsibility to the environment. Sustainability is a corporate objective that we take very seriously; it is embodied by Think Blue. It's about less talk and more action, every day. The best part is that you can join us on this journey. Think Blue is about being more responsible on the road and more environmentally conscious - not just in our cars, but everywhere. For us, building low-emission vehicles is just the beginning. Maximizing their fuel efficiency potential and further reducing fuel consumption across the board are the next challenges we'll face" (Think Blue, 2017).

From the public's point of view, VW's marketing seemingly coincided with steps to increase the company's sustainability in terms of manufacturing. Also in 2011, VW opened a manufacturing facility in Chattanooga, Tennessee, at the time, one of the world's greenest automobile factories having set new benchmarks for environmentally-friendly and resource efficient plant structures and production processes. In a remarkably short time, VW garnered both a strong reputation among stakeholders and a position as a leader in producing environmentally-friendly, high miles-per-gallon, diesel vehicles. By 2009, diesel vehicles made up 20 percent of VW's US sales (Peckham, 2010).

Behind the Green Image

As VW's US market share was increasing, it met an unforeseen hurdle in the US EPA's rigid NOx (nitrogen oxides) emission regulations (Smith & Parloff, 2016). In 2009, the U.S. announced the maximum allowable emissions level was 44 mg NOx/km, compared to the 180 mg NOx/km that was permitted in Europe. Volkswagen, accustomed to working within European parameters, faced a huge challenge in living up to their brand image and world renowned performance reputation. These stricter US regulations forced VW to reduce the emissions of its diesel engines by a full 75% to meet emissions standards. As a result, VW placed significant pressure on their development teams and demanded they meet nearly impossible expectations (Smith & Parloff, 2016).

But in early 2014, John German and Peter Mock of the International Council on Clean Transportation (ICCT) detected incongruities in the emissions of diesel powered VWs when operating in "very ordinary" on-the-road conditions, as opposed to typical, laboratory test conditions. Although German and Mock reported their findings to VW and the Environmental Protection Agency (EPA), they received no response from either organization (Patra, 2016). Curiously, after German and Mock had sent their results to VW, the company recalled approximately 500,000 diesel powered cars in December of 2014 to address software and emissions issues. According to Patra (2016), Volkswagen still did not take the steps necessary to resolve the emissions problems.

Shortly after German and Mock made their discovery, a team of West Virginia University scientists were employed by the ICCT to conduct independent emissions tests on VW diesel powered vehicles (Glinton, 2016). With the use of a portable emissions measurement system (PEMS) measuring carbon dioxide, carbon monoxide, oxides of nitrogen and hydrocarbons, etc. from the tailpipes of vehicles while operating on the road (West Virginia University, 2015), the West Virginia University team found that certain VW diesel powered vehicles exceeded nitrogen oxide emissions by 40 times the EPA's allowed standard (United States Environmental Protection Agency, 2016). Yet, this same line of vehicles

produced emissions well below EPA limits when tested prior to sale. These results would later be attributed to a "defeat device," which allowed VW to alter the emissions of their diesel vehicles while being tested.

The idea that a single company could engage in wide-scale fraud and greenwashing is feasible. However, the thought of that same fraud infiltrating another company is almost unbelievable. Yet in this case, it appears to be true. After failing to meet both EPA emission standards and internal design parameters, VW received assistance from Robert Bosch GmbH (Bosch) —the world's largest supplier of automotive parts and a frequent collaborator with VW (Boston, September 9, 2016). Consequently, Bosch proved responsible for many of the components directly involved in the VW diesel scandal including the engine control software which fraudulently alters emission test results.

An examination of communications between Bosch and VW suggests both companies were preparing for the consequences of their deceit. In 2008, Bosch requested compensation for anticipated liability from the devices supplied by Bosch, which VW subsequently denied. What's more, an email from a Bosch employee on June 23, 2008, indicates Bosch was concerned with being identified in the case but suggested they could help VW modify their diesel engines to recognize when they were being tested (Boston & Dauer, 2015).

Since the discovery of the defeat device, the ramifications for VW have been dramatic. Approximately 500,000 cars sold in the US and 11 million vehicles sold worldwide, including those sold by VW, Porsche, Audi, (along with Skoda, and SEAT vehicles sold in Europe), were discovered to have used the defeat device (Hotten, 2015). In addition to a massive recall, a buy-back program, class-action lawsuits, and multi-billion dollar settlements have all been implemented.

Although the consequences of the VW diesel scandal are of significant economic importance to both consumers and the auto industry, perhaps the most important consequence of the situation surrounding the scandal for future business leaders is a better understanding of the corporate culture which encouraged the creation of the defeat device and fraud of unprecedented levels. The same corporate culture which also participated in greenwashing marketing practices.

The Volkswagen Culture

How, then, did a company of VW's size and stature, come to make such unethical decisions? Surely, VW's management must have known that these greenwashing practices would eventually get noticed and the company would have to pay a significant price for their actions. To fully understand why VW engaged in such blatant decupling, it is necessary to examine VW's corporate culture.

A prime example of the pressure faced by VW employees to succeed can be seen in the events leading to the development of the defeat device. The discrepancy between US diesel emission standards and the actual performance of VW's diesel technology would appear to be an insurmountable task for most automobile manufacturers. According to a whistleblower who spoke to German newspaper *Süddeutsche Zeitung,* it was not, "…acceptable to admit anything is impossible. Instead of telling management that they could not meet the parameters, the decision was made to manipulate vehicle performance. No one at VW had the courage to admit failure; moreover, the engine developers felt secure because there was no way of detecting the deceit with the testing technology that existed at the time" (Smith & Parloff, 2016). It was, as the whistleblower said, "an act of desperation" (Smith & Parloff, 2016).

In 2006, engineer James Liang and his team were unable to meet consumer expectations, internal expectations, and emissions standards for the new diesel engine (Viswanatha & Rogers, 2016). Liang operated in an environment in which dealings with top management were handled with a "distance, a fear and respect". If VW employees, "…presented bad news, those were the moments that it could become quite unpleasant and loud and quite demanding" (Hoffman, 2016).

Volkswagen's decoupling greenwashing managerial style combined with unrelenting autocratic performance goals resulted in an arrest, $200,000 fine, and 40-month prison sentence for Liang. The judge concluded that Liang had been a key reason why VW was able to cheat diesel emissions standards and that he had been too faithful to the company. The judge also wanted to make Liang's sentence a

message to other employees in the industry who may be pressured by their managers (Vellequette, August 25, 2017). Other arrests were to follow that of Liang's. The most notable was that of Oliver Schmidt, the former chief of VW's environmental and engineering center in Michigan. Mr. Schmidt knew about the cheating software well before the scandal unfolded, and played a significant role in VW's attempt to hide the software from authorities. In the summer of 2015 when the pressure from U.S. authorities was increasing, Mr. Schmidt's involvement in concealing the software also increased. According to a complaint, "Mr. Schmidt played a key role in preparing a meeting in Wolfsburg – internally known as the "damage conference" – at which Volkswagen executives discussed the defeat devices, the consequences for the company and the decision to continue misleading U.S. authorities" (Boston, Campo-Flores, Viswanatha & Spector, 2017). Mr. Schmidt now faces up to seven years in prison and a $40,000-$400,000 fine (Wayland, 2017). Several other VW executives have been charged for their involvement in the scandal, but they remain in Germany. Heinz-Jakob Neusser, the head of VW research and development and a management board member. He is the highest-level executive charged. Richard Dorenkamp, former head of VW's engine development after-treatment department, and Bernd Gottweis, a quality management and product safety supervisor, have since retired. Jens Hadler has also left the company. He once led VW brand's engine development department. Juergen Peter continues to work in VW's certification group. An additional VW executive in South Korea "was sentenced to 18 months in prison for fabricating documents on emissions and noise-level tests to achieve certification for imported vehicles" (Vellequette, January 16, 2017). Two additional arrests were made in Germany that included Wolfgang Hatz, former VW engine chief, and Giovanni Pamio, a former Audi employee and head of thermodynamics in the engine-development department (Boston, September 29, 2017).

Investigations have been ongoing and there is certainly possibility for more arrests to be made as new evidence continues to surface. With a scandal and cover-up of this magnitude, it is clear that it involved the participation of countless employees, beginning with upper level management.

The pressure placed upon engineers, and even the loyalty displayed by Bosch, may initially appear obvious given VW's corporate autocratic, greenwashing culture; albeit a culture not obvious to even tenured employees. Ferdinand Dudenhöffer, director of the Center for Automotive Research at the University of Duisburg-Essen, Germany suggests that VW's top management may have never directly instructed employees to install the cheat software (Goodman, 2015). Instead, the company's work environment discourages debate and dissenting opinions. "Sometimes you can do things without explicitly ordering them," said Dudenhöffer . "At Volkswagen, the management might say, 'Please think again on that, and if you don't find a solution, we may need to find another engineer.' You may find yourself in a situation where, if you want to keep your job, you have no escape." Ferdinand Piëch, Chairman and CEO of VW from 1993-2002 (McHugh, 2015), was known for his demanding management style which, when implemented, could drive his subordinates to extreme measures. On one occasion, when questioned regarding the mystery behind the VW Golf's remarkable body fit, Piëch explained,

"I'll give you the recipe. I called all the body engineers, stamping people, manufacturing, and executives into my conference room. And I said, 'I am tired of all these lousy body fits. You have six weeks to achieve world-class body fits. I have all your names. If we do not have good body fits in six weeks, I will replace all of you. Thank you for your time today." (Lutz, 2015).

It was later learned that after the six-week time allotment the Golf body fit did not meet Piëch's demands, and in an act of desperation, photos of the Golf were touched up to make them merely make the Golf appear to have tighter body fits (Smith and Parloff, 2016).

Volkswagen's labor leader, Bernd Osterloh, addressed a letter to employees in September, 2015, acknowledging that the company needed to change its workplace culture and create "a climate in which problems aren't hidden but can be openly communicated to superiors, [and where] it's possible and permissible to argue with your superior about the best way to go."

Martin Winterkorn, VW CEO from 2007-September, 2015 maintained a management style that mirrored Ferdinand Piëch's. Winterkorn was known to demand perfection and excellence in all things VW, and set corporate goals of launching VW to the top of the automobile industry by 2018 (Hoffman,

2016). Winterkorn's intense ambition was notoriously intimidating and demanding. At VW, "…sometimes you can do things without explicitly ordering them (employees)." When Winterkorn was CEO, there simply was no such thing as job security (Goodman, 2015), and ironically, even at the helm. So, on September 23, 2015, 8 days after the scandal became public, Martin Winterkorn, CEO of VW, resigned for the "…interests of the company even though I (Winterkorn) am not aware of any wrongdoing on my part." (Thompson & Liakos, 2015).

Did Greenwashing Hurt VW?

One might conclude that a market's reaction to such brazen greenwashing would be overwhelming. But it appears that customers in the automotive market have either short memories or forgiving natures, or that VW possesses the brand equity that makes it impervious to scandal. Media coverage was initially quite critical of VW, and owners of recalled VWs seemed incensed. VW sales in the U.S. were down 7.6% in 2016**,** but sales have recovered significantly in 2017. Volkswagen brand sales in the U.S. were up 6.7% through August of 2017. The company launched a buyback program starting in November, 2016 that led to a 21% sales growth from November thru January, compared to the same period the previous year (Roberts, 2017). About 20% of consumer that sold their vehicles back to VW chose to buy a new VW (Beene, 2017). World-wide, VW is faring even better. In 2016, VW sales in China were up 14%, in Mexico they were up 14.7%, Central and Eastern Europe sales grew 7%, Western Europe sales increased 5.8%, and global sales were up 2.8% (Boston, January 10, 2017). After overcoming significant costs associated with the scandal, VW profits have been strong as well. In the first quarter of 2017, net profit was up 45% and operating profit was up 27% (Boston, May 4, 2017). VW brand profit margin increased 3.5% in the first quarter and profit margin for the entire company rose 8.4%. Volkswagen credits cost cutting and strong sales of new models, particularly the Tiguan SUV, to the good first quarter performance (Boston, April 19, 2017). VW has revealed major initiatives to rebuild its brand and regain consumer trust through the introduction of new products. In the U.S., VW plans to introduce two new models every year, including sedans in 2018 and SUVs in 2019 and 2020. The company will also start production of electric vehicles in 2020 (Boston, May 8, 2017). By 2025, VW aims to achieve annual sales of at least one million electric vehicles (Boston, November 23, 2016).

In an additional effort to rebuild their brand, VW has expanded its warranties on a lineup of 2018 cars. Volkswagen is prepared to offer a 6 year/72,000 mile bumper-to-bumper transferable warranty on all vehicles in the 2018 lineup except the e-Golf (Vellequette, September 29, 2017), twice the duration of the industry standard. It is an attempt to regain their reputation and consumer trust while also making monthly payments more affordable for consumers. Regaining an honorable reputation will take time, but VW has taken significant strides in order to do so. Many of their actions, such as this new warranty, have been in the best interest of the consumer.

According to Herbert Diess, VW brand chief, "the company will need a decade to rebuild the brand in the U.S., and its strategy will be driven in part by the launch of 17 new SUVs world-wide by 2020, and a bid to become the market leader in electric vehicles" (Boston, November 23, 2016). These are strong goals for a company that is still overcoming a significant crisis; however, VW consumers have proven thus far to remain surprising loyal to the brand.

European consumers appear far more forgiving with regard to the VW brand. Sixty-five percent of respondents in a recent poll by the management consulting firm, Prophet, believed the scandal had been exaggerated and that VW still built excellent cars. The same survey, which surveyed 1,000 Germans only two weeks after news of the scandal broke, found that 91% of respondents believed other carmakers were also manipulating emissions tests and that VW was just the first one caught. Three quarters of study participants stated they would still buy a VW if they liked the vehicle and the price, and 63% expected the affair to be largely forgotten within a year. Sixty percent did not expect any long-term damage to the "made in Germany" brand (Löhr, 2015).

The impact of the scandal has, however, had a significant impact upon VW's net profits due to the financial penalties placed upon the firm. VW reported a steep drop in third-quarter 2017 earnings with a $3 billion charge against net income. As a result, investor earnings plunged dramatically from a year

earlier. So far in 2017 alone, VW has paid nearly $17 billion in diesel related costs and they expect to pay another $3 billion by the end of 2017 (Boston, October 28-29, 2017).

Managerial Considerations

Volkswagen's autocratic management style regarded largely as "rule and instruction based" made greenwashing a possibility. Be it decoupling or attention deflection, greenwashing is more apt to occur with managers known to adhere to clear-cut procedures and less likely to improvise and question. Many VW managers are highly technical and place a significant value on their technical expertise. Middle managers focus more on technical responsibilities compared to managerial responsibilities. In one study, managers credited their technical expertise as the most important source of their authority. Due to their technical background, there is less separation between managers and production compared to many other firms. (Glunk, et al., 1996). But is such a technologically focused environment conducive to sound decision making and proper managerial oversight? Based upon the scandal that has befallen VW, one might argue it is not.

Despite the knowledge surrounding the origins of the scandal, what remains to be seen is if the necessary changes can be developed and implemented by management from within. Volkswagen may also need to recruit new top level managers from outside the organization. However, should VW go down this path, the new management may face resistance from current VW employees already entrenched in the established corporate culture.

To its advantage, VW has an extremely powerful, albeit tarnished, brand upon which to build, a surprisingly loyal customer base, and a gifted workforce. And while VW has already regained its sales position in many markets, what remains to be seen is if the firm is willing, and able, to implement the dramatic changes necessary to prevent such an egregious scandal from happening in the future.

Although the consequences of VW's greenwashing are severe in the short-term, it is possible the company will remain largely unscathed in the long-term. And here lies the most crucial question facing firms considering engaging in greenwashing today: while the management structure of the firm may be conducive and the market forgiving, is greenwashing the best option available for not only achieving corporate goals, but for the societal needs in which the firm functions and the legacy that management will leave behind?

REFERENCES

Beene, R. (2017). Retailer vows to hold VW accountable. *Automotive News,* January 23, 2017.

Bernstein, M. (2007). Start your diesels. *Businessweek Online*, 27.

Berrone, P., Fofuri, A., Gelabert, L. (2017). Does Greenwashing Pay Off? Understanding the relationship between environmental actions and environmentaal legitimacy. *Journal of Business Ethics*, 144: 363-379.

Boston, W. (September 9, 2016). Meeting ties Bosch CEO to VW chief. *The Wall Street Journal*, B3.

Boston, W. (November 23, 2016). VW maps plan to rev profit. *The Wall Street Journal,* B3.

Boston, W. (January 10, 2017). VW shows strong growth despite scandal. *Wall Street Journal,* B6.

Boston, W. (April 19, 2017). Volkswagen reveals strong first-quarter operating profit. *Wall Street Journal - Online Edition*. p. 1.

Boston, W. (May 4, 2017). Volkswagen recovers from scandal as profit soars. *The Wall Street Journal,* B3.

Boston, W. (May 8, 2017). VW again says it is on cusp of U.S. turnaround. *The Wall Street Journal,* B3.

Boston, W. (September 29, 2017). Arrest made in German VW probe. *The Wall Street Journal*, B1.

Boston, W. (October 28-29, 2017). VW Profit drops on diesel charge. *The Wall Street Journal*, B4.

Boston, W., & Dauer, U. (December 16, 2015), Auto-parts supplier Robert Bosch probed amid emissions scandal. *The Wall Street Journal.* Retrieved from http://www.wsj.com/articles/auto-parts-supplier-robert-bosch-probed-amid-emissions-scandal-1450264797.

Boston, W., Campo-Flores, A., Viswanatha, A., & Spector, M. (January 10, 2017). VW executive is arrested in U.S. *The Wall Street Journal*, B6.
Campbell, MC. & Kirmani A. (2000). Consumers' use of persuasion knowledge: The effects of accessibility and cognitive capacity on perceptions of an influence agent. *Journal of Consumer Research.* 27: 69-83.
Cervellon, M. C. (2013). Conspicuous conservation: Using semiotics to understand sustainable luxury, *International Journal of Market Research,* 55(5), 695-717.
Chan R., Leung TKP, Wong YH, (2006). The effectiveness of environmental claims on services advertising. *Journal of Services Marketing.* 20. 233-250.
Chen, Y., & Chang, C. (2013). Greenwash and green trust: The mediation effects of green consumer confusion and green perceived risk. *Journal of Business Ethics.* 114(3), 489-500.
Cherry, M.A., & Sneirson, J.F. (2011). Beyond profit: Rethinking corporate social responsibilityand greenwashing after the BP oil disaster. *Tulane Law Review,* 85(4), 983-1038.
Cliath, A. G. (2007). Seeing shades: Ecological and socially just labeling, *Organization*, 20(4), 413-439.
Dahlstrom, R. (2010). *Green Marketing Management.* Mason, OH; South-Western.
Delmas, M., & Burbano, V.C. (2011). The drivers of greenwashing. *California Management Review,* 54(1), 64-87.
De Vries, G., Terwel, B., Ellemers, N., & Daamen, D., (2013). Sustainability or profitability? How communicated motives for environmental policy affect public perceptions of corporate greenwashing. *Corporate Social Responsibility and Environmental Management.* 22. 142-154.
Easterling, D, Kenworthy, A., & Nemzoff, R. (1996). The greening of advertising: A twenty-five year look at environmental advertising. *Journal of Marketing Theory & Practice,* 4(1), 20-33.
Gatzert, N. (2015). The impact of corporate reputation and reputatiion damaging events on financial performance: Emperical evidence from the literatuere. *European Management Journal,* 33(6), 485-499.
Gillespie, E. (2008). Stemming the tide of greenwash. *Consumer Policy Review.* 18(3). 79-83.
Glinton, S. (September 24, 2016). How a little lab in West Virginia caught Volkswagen's big cheat. Retrieved from http://www.npr.org/2015/09/24/443053672/how-a -little-lab-in-west-virginia-caught-volkswagens-big-cheat.
Glunk, U., Wilderom, C., & Ogilvie, R. (1996). Finding the key to German-style management. *International Studies Of Management & Organization*, 26(3), 93-108.
Goodman, L.M. (2015). Why Volkswagen cheated. *Newsweek Global*, 165 (23), 14.
Hotten, R. (December 10, 2015). Volkswagen: the scandal explained. *BBC News.* Retrieved from http://www.bbc.com/news/business-34324772.
Hoffman, A. (March 1, 2016). Volkswagen's clean diesel dilemma. WDI Publishing, Frederick A. & Barbara M. Erb Institute, University of Michigan, case 1-430-484.
Kleinman, D. (January 25, 2016). Will Volkswagen's possible $18 billion emissions penalty drive transparency in manufacturing? *Forbes*. https://www.forbes.com/sites/danielkleinman/2016/01/25/will-volkswagens-possible-18-billion-emissions-penalty-drive-transparency-in-manufacturing/#295e04b04873
Kurylko, D.T. (May 23, 2011). VW launches Think Blue campaign to pitch green initiatives, *Automotive News*, http://www.autonews.com/article/20110523/RETAIL03/110529971/ vw-launches-think-blue-campaign-to-pitch-green-initiatives
Laufer, W.S. (2003), Social accountability and corporate greenwashing, *Journal of Business Ethics*, 43(3), 253-261.
Löhr, J. (October 23, 2015). Two-thirds of Germans still trust Volkswagen after emissions scandal. *The Guardian*. Retrieved from https://www.theguardian.com/business/2015/oct/20/two-thirds-of-germans-still-trust-volkswagen-after-emissions-scandal.
Lutz, B. (November 4, 2015). One man established the culture that led to VW's emissions scandal. *Road and Track.* Retrieved from http://www.roadandtrack.com/carculture/a27197/bob-lutz-vw-diesel-fiasco/.

Martin, D. & Schouten, J. (2012). *Sustainable Marketing,* Prentice Hall, p. 195.
McHugh, D. (2015). Volkswagen chairman Piech. *The Associated Press*.
Nyilasy, G., Gangadharbatla, H., & Paladino, A (2014). Perceived greenwashing: the interactive effects of green advertising and corporate environmental performance on consumer reactions. *Journal of Business Ethics*, 125: 693-707.
Parguel, B., Benoit-Moreau, F., & Russell, C. A. (2015). Can evoking nature in advertising mislead consumers? The power of 'executional greenwashing. *International Journal of Advertising,* 34(1), 107-134.
Patra, B. P. (2016). The deliberate deception: case study on Volkswagen emission scandal. *Vilaksha: The XIMB Journal of Management,* 13(1), 139-148.
Peckham, J. (2010). 20% of VW's 2009 U.S. car sales were diesels. *Diesel Fuel News*, *14*(2), 12.
Polonsky, M., (1995). Cleaning up environmental marketing claims: A practical checklist. *Environment Marketing. Mintu-Wimsatt AT (eds). Haworth: Binhamton, NY. 199-223.*
Polonsky, M. Rosenberger III, P., (2001) Reevaluating green marketing: A strategic approach. *Business Horizons.* 44. 21-30.
Prasad, A., & Holzinger, I. (2013), Seeing through smoke and mirrors: A critical analysis of marketing CSR. *Journal of Business Research*, 66(10), 1915-1921.
Roberts, A. (February 23, 2017). Diesel Buybacks Aid VW's Sales. *The Wall Street Journal,* B3.
Siano, A., Vollero, A., Conte, F., & Amabile, S. (2017), More than words: expanding the taxonomy of greenwashing after the Volkswagen scandal. *Journal of Business Research,* 71, 27-37.
Smith, G., & Parloff, R. (2016, March 7). Inside Volkswagen's diesel fraud. *Fortune.* Retrieved from http://fortune.com/inside-volkswagen-emissions-scandal/.
Terrachoice (2009). Greenwashing reports. Retrieved January 5, 2013, from http://sinsofgreenwashingorg/findings/index.html.
Think Blue (2017) - http://thinkblue.volkswagen.de/en_US/about_think_blue.
Thompson, M. & Liakos, C. (September 23, 2015). Volkswagen CEO Quits Over 'Grave Crisis', *CNNMoney*, money.cnn.com/2015/09/23/news/companies/Volkswagen-emissions
United States Environmental Protection Agency. (2016). Learn about Volkswagen violations. http://www.epa.gov/vw/learn-about-volkswagen-violations.
Vellequette, Larry P. (August 25, 2017). Former VW engineer Liang sentenced to 40 months, $200,000 fine. Retrieved from http://www.autonews.com/article/20170825/OEM11/170829826/former-vw-engineer-liang-sentenced-to-40-months-%24200000-fine
Vellequette, L. P. (September 29, 2017). VW boosts 2018 warranties to 6 years/72,000 miles. Retrieved from http://www.autonews.com/article/20170929/RETAIL03/170929756/volkswagen-warranty-sales-service-scandal
Vellequette, L. P. (January 16, 2017). VW plot to fool feds: How high did it go? *Automotive News,* (1) 41.
Viswanatha, A., & Rogers, C. (September 10, 2016). VW engineer admits diesel scandal. *The Wall Street Journal*, A1.
Volkswagen rolls out "Think Blue." in the USA, Retrieved from – http://www.autoblog.com/2011/05/23/vw-launches-think-blue-initiative-in-u-s/.
"VW touts its efforts to reduce CO2 emissions". (2007). *Automotive News Europe*, 12(12), 7.
Wayland, M. (2017, August 7). Ex-VW compliance exec pleads guilty. *Automotive News,* 37.
West Virginia University (2015, September 24). WVU study found elevated level of emissions from Volkswagen vehicles, http://wvutoday.wvu.edu/n/2015/09/24/wvu-study-found-elevated-levels-of-emissions-from-volkswgen-vehicles.