In Sally Cook's situation her decision is going to be determined by the strength of her moral compass and the stake she holds in the Graham Corporation. The first step to making a decision in this ethical dilemma is going to be to first identify the stakeholders that are effected by Sally's decision. The most important two are Sally Cook and Ralph Bossey, the takeover specialist, as their actions are going to be what ultimately dictates the outcome of the situation for the other stake holders.

Another one of the stake holders is going to be the other stock holders, as Sally's decision can end up determining Bossey's future offers. For example, if she declines his offer, Bossey may increase what he is paying the other stock holders to give up their holdings.

The Graham Corporation is also a stakeholder, as are it's employees, and the environment it occupies. If Sally takes the offer, the company will be forced to cut back on the employees it employs, which in turn could have a negative effect on the area around the manufacturing facility by weakening the local economy through loss of wages, and though loss of supporting industries.

The Graham Corporation will also have to cut back research and development for creating healthier foods, so it could be assumed that their customers will also be negatively effected and have a stake in this decision. Though the general public don't have much of a say in this decision, Sally or Ralph could face negative consequences due to degradation of their public image should Sally take Ralph's offer.

In addition to considering how her actions effect the stake holders, Sally also needs to consider what benefits she gets from this deal. In this case it's more money than her stock was previously worth, so it boils down to how much does she need that additional money. It could be the difference between her barely making ends meet and living comfortable in retirement, but

from the wording of the ethical dilemma it sounds like she already has retirement planned, and this will just be an improvement in an already comfortable financial situation.

This leads into what her next consideration should be; what does she have to lose from not taking the offer? Someone with an economics background could argue that the opportunity cost of not taking the deal is $350,000, but there isn't any information given about Sally's connection with the company. It could be the case that many people in her social circle work for the Graham Corporation, and Sally will be ostracizing herself by taking the deal. It could also be the case that the Graham Corporation and Sally have no connection other than the money she has invested, so she has nothing to lose by taking the deal aside from a guilty conscience. These are things that Sally will need to evaluate before making her decision.

Personally, I don't think Sally should take the deal, but I certainly wouldn't blame her if she did. My reasoning is that Sally will still be getting some value out of her stock, and I am assuming that she is already financially stable, that any money gained from the stock will be extra income, and that she can support herself financially without it. Sally would also have to live with a guilty conscience knowing that she put many people out of work for her own personal gain, which personally isn't how I would want to spend my retirement.

My reasoning for saying that I wouldn't blame Sally for taking the offer is that if she doesn't sell her holdings in the Graham Corporation then someone else will, potentially for much more money. Assuming that everyone else is just going to sell their holdings it can be seen that the outcome is inevitable, so Sally is just missing out on free money because she decided to take the moral high ground. Her stock could also potentially be worth much less than it is currently if the company is unable to perform it's previous role while also paying for the bonds, so it would make financial sense to take the deal.

I am first going to make the assumption that the Cotter Ladder Company doesn't make ladders that are defective, and that the injuries are simply due to the inherent dangers of all ladders. The example of a ladder is given in the required textbook for this class; "Managers and the Legal Environment", where it states that an assumption of risk is taken on by the end user of a product when they use an inherently dangerous product and that the manufacturer is not liable for any injuries.[1]

The part that may be most confusing for Monica Long is why users of the Cotter Ladder Company's product are protected in some states but not others. It is possible that in some states they are protected by limitations on joint liability[2] where the ladder company doesn't have to pay a large share of damages to a customer due to the customers use of the product being the majority of the reason they are injured. The ladder company may also be protected by a useful life statute[3] in some states, where users of their products can't sue for damages because the ladders they fell off of were past the assumed useful lifespan.

Whether or not the Ladder Company should support the new liability law should not be determined by Monica's understanding of the various laws of different states. It isn't stated how strict the new law is, but there is a chance that the law can be disadvantage to the ladder company. If the law is in the spirit of some of the more consumer protection friendly states then the ladder company could owe more in damages to people that fell off of their ladders, a product that is inherently dangerous and to which little liability should be owed from the manufacturer. If the law is more manufacturer friendly then it is possible that the Cotter Ladder Company would want to support it. If it passes it is possible that they will owe less in damages to people that fall of of their ladders assuming the ladder operated properly and was not a defective product.

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[1] Bagley Managers and the legal environment: Strategies for the 21st century 2013, Chapter 10-8a

[2] Bagley Managers and the legal environment: Strategies for the 21st century 2013, Chapter 10-9b

[3] Bagley Managers and the legal environment: Strategies for the 21st century 2013, Chapter 10-9g

As I alluded to in the previous paragraph, Monica's understanding of the law should not be the basis of the companies decision. If the company is unclear in the different state laws relating to product liability they should be consulting with a lawyer familiar with the subject. It is my opinion that the Cotter Ladder Company shouldn't support any bills that add additional liability requirements for them as it could open them up to future liability suits that they previously weren't exposed to. This may seem like a heartless response, but it is my opinion that in the case of a product that carries some assumed danger of use holding manufactures liable beyond producing a reliable product that carries the appropriate warnings would be unsympathetic to the business interests of companies that manufacture inherently dangerous products such as tools, automobiles, firearms, and certain medications.

Referenced:

Bagley, Constance E. Managers and the legal environment: Strategies for the 21st century. Mason, OH, South-Westen, Cengage Learning, 2013.

Orkin Extermination Company's dilemma was caused by a massive oversight in which they did not or were unable to predict a massive increase in their costs to operate a business. From a customer service standpoint, the outcome could have been much worse for Orkin as it appears that they minimized the financial damages to the firm by increasing the renewal rates after explaining to customers why they had to increase the renewal fee by 40%, and swallowed the cost where they could not satisfy a customer with a simple explanation by keeping them at the old rate.

There are several instances that could be argued for the case that Orkin was not obligated to fulfill it's end of the contract. The contract could have been considered an illusory promise[1] if it were the case that Orkin would supply the customer with all of it's extermination needs should the customer request them, but the customer was under no obligation to go exclusively to Orkin to have pest control work done, and because there is only consideration from the customer to Orkin, there would be no contract. Under an illusory agreement it could be argued that a promissory estoppel[2] would be the exception, though it would have been a tough argument to make as the breach of contract occurred under unforeseeable circumstances.

Another big factor in this ethical dilemma in determining whether or not what Orkin did was wrong is to determine if the customer was truly served an injustice. It could be argued that the customer was not harmed by the reliance on a promise that was broken, so it was not truly an injustice the Orkin didn't carry through on it's end of the contract.[3] Irregardless of injustice served or not, it should be noted that there is likely a severe reputation cost associated with this move, as future customers and potentially other firms would be wary of entering into an agreement with The Orkin Extermination Company in the future.

On the customer side of the argument, it could be argued that Orkin assumed the risk of the agreement, and they should be held liable to uphold their end of the agreement.[4] In this case Orkin may argue that there was a mistake in judgment, and therefore not liable to uphold the

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[1] Bagley Managers and the legal environment: Strategies for the 21st century 2013, Chapter 7-3b

[2] Bagley Managers and the legal environment: Strategies for the 21st century 2013, Chapter 7-6

[3] Bagley Managers and the legal environment: Strategies for the 21st century 2013, Chapter 7-6d

[4] Bagley Managers and the legal environment: Strategies for the 21st century 2013, Chapter 7-9d

contract. However, this would only be the case if the circumstances in which they are upholding the agreement were truly unforeseeable, which could have very likely been the case. It could also be argued that the contract was similar to a futures agreement where Orkin was betting that they could provide a service at less than the agreed cost, and the customer was betting that that cost would be much lower than the normal future cost, and Orkin's predicament was simply a business error, and not something that would nullify the contract.[5]

In the author's opinion this case was handled the best it could have been with an outcome where Orkin is still a company. Had they been forced to uphold their end of the agreement they would have potentially went out of business, and would then be unable to provide services to any of their customers. In the outcome that occured, those customers that were willing to accept that they made a error in judgement and pay the increased cost still got a small discount over the alternative of going to a different company, and those that weren't paid the original price. This is of course not fair to the customers that paid the inflated price, though it is better than the alternative of paying an even higher rate should Orkin have gone out of business, and it could have also been the case that the rate that the persistent customers paid was all that they were able to pay, and that increased rates meant they would no longer live in a pest free environment. One can only speculate with incomplete information, but in the opinion of the author this was handled well for the given circumstances.

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[5] Bagley Managers and the legal environment: Strategies for the 21st century 2013, Chapter 7-9e

Innovation, Machine Learning, and Social Media;

Three factors critical to developing marketing strategies in the next five years

By: Jonathan Franko

This paper will discuss what, in the author's opinion, the key issues facing the marketing of technical products are. The most critical issue for any company, especially those that are technology oriented is the key to innovate (Tuttle, 2017). In addition to continuously seeking innovation, the marketing of tech products will be heavily impacted by machine learning (Chow, 2017) and social media (Kaplan & Haenlein, 2010) both currently and in the near future.

It is essential for any company that wishes to remain profitable to not only innovate, but to make sure their innovation strategy aligns with their business strategy. In doing so, a company is able to insure that the innovations they are producing match the competitive needs of the business (Pisano, 2015). This is especially true for tech-based firms, as innovations often signal to "imitators" that there is money left on the table in the market for a new and innovative product which results in increased competition. Because of this constant innovation is necessary both to create a new product, but also to keep the innovation competitive with new entrants to the market.

An example of where a firm failed to utilize an innovation is Kodak, which was once a major player in the camera industry. In 1975 Steve Sasson, an employee of Kodak invented the first digital camera. After over a decade of improvements he had developed a DSLR that would have been ready to go to market. However, fearing that it would disrupt the film industry that Kodak so was dominant in, the camera was never sold. Eventually the rest of the industry caught up, and companies such as Nikon, Canon, and Sony became the major players as photography went digital. Though Kodak did make money off of the digital camera patents it held, they would eventually run out in 2007, and Kodak filed for bankruptcy in 2012. (McAlone, 2015)

The invention of the digital camera was a textbook example of an architectural innovation. (Pisano, 2015) Architectural innovations are the hardest to overcome as, in the Kodak example, would have required a completely different business model that switched from focusing on selling consumers disposable products to durable goods, and would have required

new core competencies. I imagine the the upper management at Kodak believed the digital camera was a novelty item and that there was no way physical film would become mostly

obsolete, as having early access to something that was going to dramatically change the camera industry should have been a huge competitive advantage. By being the first to the market with a digital camera Kodak would have been prepared for the radical shift the introduction of the digital camera posed to the film industry, but instead they chose to ignore it and unsuccessfully play catch-up with other entrants to the digital camera market. Currently companies such as Kodak that chose to stick to their traditional competencies are able to rely on enthusiasts and professional photographers that still prefer film over digital photography (Genova, 2017), but the reluctance to innovate, or in the case of Kodak, embrace the innovation too late cost the company to lose a large share of the market.

On the other end of the innovation spectrum is Apple, a company with a clear innovation strategy that it has seen huge success from. (Pisano, 2015) As mentioned earlier, an innovation strategy should compliment the overall business strategy of a firm. In the case of Apple there strategy is to innovate on end-user ease of use, in addition to offering products that compliment each other and increase functionality for the end user. Apples innovations have been both radical and routine in the last decade. The launch of the first iPhone was a radical change to the cellphone industry by providing features that were previously available on more difficult to use devices (Blackberrys, for example) in an easy to use package. This innovation was well accepted so it wasn't long before new entrants to the market brought competition for Apple creating the need for routine innovations via upgraded generations of iPhones to remain competitive. It is also worth mentioning that Apple has excelled at creating a suite of devices that integrate well together through their innovation strategy of enhancing ease of use which creates brand loyalty and reduces the pressures faced from competition.

The next challenge that technology firms will need to address in the near future is the increasing prevalence of "artificial intelligence". At its core artificial intelligence relies on machine learning and neural networks to make computers more proficient at solving problems, with the end goal of a computer being as proficient at problem solving as a person. (Chow, 2017) When building a neural network based data model the model is given a set of data to "train" the

model, and outputs are predicted from the inputs to the model based on what it has already seen. The example given by the cited Google publication describes the scenario where you are trying to get a computer to recognize the difference between a cat and a dog. With traditional programing the task would be extremely difficult, but with machine learning you can feed the model pictures of cats and dogs and the model could predict if a new picture is of a cat or dog based on what it has already seen in the patterns of the pixels from the previous pictures.

Machine learning is already extremely prevalent in online marketing. For example, I am somewhat of a "gearhead", so when going to my ad preferences on Google I can see that the topics Google has selected for me tend to include auto manufacturers. The way these recommendations were generated was likely from Google knowing that I watch car reviews on YouTube. Though this is a pretty simple inference to make, the beauty in machine learning will be that the models are able to learn on the fly and continuously improve as more data is added. (Nimeroff, 2017) What this means for businesses is that the more data that is available on consumers, the more effective targeted marketing activities can be. The example give in the Forbes article by Jeffry Nimeroff is that the model can predict what greeting in an e-mail is best received by an audience, meaning that the use of machine learning has potential of generating messages on the fly. The ability to curate messages as well as the enormous predictive power of neural networks will be a huge influence not only on the way marketing is conducted, but also in the function of future products. In the recent years there has already been an influx of artificial intelligence based consumer tech, most notable of which are the Google Home Assistant and Amazon's Alexa, and it is my prediction that these products are just the beginning of how we as consumers are going to expect to be able to interact with technology which is going to have a large impact on how technology based firms develop and market products.

The third, and certainly not least, important issue that needs to be addressed moving forward in marketing is the prevalence of social media. According to the article by Andreas Kaplan; "Social media is a group of internet-based applications that build on the ideological and technological foundations of web 2.0, and that allow the creation and of exchange of user

generated content." (Kaplan & Haenlein, 2010) To businesses this means that they have less control over what firm related information is available to the general public, and that marketing is no longer one way business to consumer communication. Social media can be an extremely powerful marketing tool, or an extremely dangerous one, depending on how it is used by a business as it provides direct feedback from consumers, is cheap to implement, and can be quick to adapt. Kaplan gives 10 pieces of advice for successful implementation of social media programs. In summary a company should first be familiar with how a social media platform works before engaging, and follow the proper etiquette while maintaining honesty. In addition the presence needs to be both interesting and active. "Be unprofessional" is also mentioned which indicates that less than formal marketing has shown to be successful on social media. An example of which was with Coca-Cola's Diet Coke. It was shown that mixing the drink with mint flavored Mentos would create a large geyser on a popular Youtube video, so Coca-Cola promoted the video across late night television and saw improved sales. (Kaplan & Haenlein, 2010) Additionally, when used correctly social media can be an invaluable tool for small companies looking to compete with large firms with monstrous marketing budgets. Tesla, for example, utilizes mostly word of mouth advertising to promote their cars over the large dealership networks and expensive ad campaigns used by the traditional automakers. (Wechsler, 2015)

Social media is often used successfully in marketing, however it does put firms in a risky position which has created many examples of what to avoid when conducting a social media marketing campaign. Recently at this years Super Bowl Fiat-Chrysler's Ram truck division aired an advertisement that featured a sermon from Martin Luther King Jr. Given that the past year has seen increased attention to race related issues in the United States the commercial was an extremely risky move, and the advertisement was not received well as demonstrated by the nearly instant negative feedback on social media platforms. (Maheshwari, 2018)

Another drawback of social media is that the voice of the entire company often rests in one person, which can lead to mistakes being made. In 2014 American Apparel used an image of

the 1986 Challenger explosion to advertise for the 4th of July. The cause of this was an employee that was too young to have known what it was, and mistook the picture for fireworks. (DeMers, 2016) It could also be the case where the voice of the company rests on the consumer and other users of the social media platform. This was the case with Microsoft's tweeting AI "Tay" which was supposed to use machine learning on the Twitter platform to hopefully develop an understanding of conversations through tweeting. Once it was discovered how Tay worked Twitter users started tweeting profane remarks at the bot, and less than 24 hours later Tay was taken down as her tweets had gotten quite racist. (DeMers, 2016)

In the previous three examples American Apparel didn't have any oversight for posts to be approved, Microsoft had seriously underestimated how their AI could be abused, and Ram failed to read the environment they were advertising to. While amusing, social media blunders like these can be a good example of what to look out for when conducting a social media ad campaign and the problems that can occur. Social media is a part of most consumer's lives, so while it may be easier for a firm to completely abstain from having a social media presence, it would certainly be wiser to find an innovative way to incorporate social media into the firm's marketing strategy.

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Opinion Paper 2

Jonathan Franko

Introduction:

In the fall semester of 2014 approximately 5.8 million students were enrolled in at least one online course. This marks continued growth over the last several years in both private and public institutions, but interestingly not in for-profit institutions (Friedmen, 2016). One possibility for the decline in for-profit institutions is due to negative public perceptions regarding the quality of education received at for-profit colleges versus the education available at public and private institutions.

Distance learning is not a new concept with it previously being achieved through other communication means such as telephone calls or mail, however as technology in the form of internet connected devices has become more prevalent the use of online courses has become a more viable option, and in some instances a substitute for direct face to face education (Hiltz & Turoff, 2005). For these reasons Kent State University needs to decide whether or not they should incorporate distance learning via the internet into their technology strategy, and to what extent if the updated strategy is pursued.

Determining the appropriate model:

One of the key considerations before attempting to work online education into Kent State's technology strategy should of course be whether or not the additional offerings are going

to be viewed positively by potential students and the likelihood of potential and current students utilizing the new resources. To gauge adoption of the proposed online resources it would be wise to first consider what factors influence a student's decision to utilize online learning resources, then consider what models accommodate those variables best. Kent State's strategy team would not be alone in addressing the question of whether or not they should implement online distance learning, as several studies have already been conducted utilizing the technology acceptance model (TAM) or a variation of TAM with added variables.

John Molson School of Business researchers Raafat Saadé and Bouchaib Bahli argued that cognitive absorption could be applied to perceived usefulness and perceived ease of use in TAM to enhance the model's ability in explaining the acceptance of online distance learning (Saadé & Bahli, 2005). Cognitive absorption is described as the approach of evaluating an individual's enjoyment in using the system and how the user perceives time while using the system, essentially meaning "time flies when you're having fun". Their research indicated that the time component did not have a large impact on cognitive absorption, but that cognitive absorption did have an impact on perceived usefulness. What they did not find was a link between perceived ease of use and cognitive absorption, however they do admit that the research was flawed in that the study utilized MIS students who likely have higher computer literacy skills. (Saadé & Bahli, 2005). Had that study been conducted in 2017 instead of 2005 it is my belief that the results would be similar in the general population as computer literacy increases when technology becomes more available.

In a TAM based study conducted by Sung Youl Park at Konkuk University it was found that self-efficacy and subjective norm influenced a person's likelihood of adopting a system.

Interestingly it has been found that perceived ease of use and perceived usefulness had a greater impact on potential student's attitudes towards online distance learning than it did on their intention to use (Park, 2009). This could be because online based distance learning may no longer be perceived as difficult as access to technology and technical knowledge improves over time. This holds especially true in a developed countries such as the United States where 92.3% of households have fixed broadband internet services (defined as having download speeds of 25mbps and upload speeds of 3mbps) (FCC, 2018)

Additional TAM based research which added extra variables such as course design and past experiences in online courses found similar results where perceived ease of use was less critical in determining the adoption of an online learning system (Liu, Chen, Sun, Wible, & Kuo, 2010). It was inferred that because previous online course experience was also included, that likely had a larger impact than perceived ease of use as an individual with previous experience would find future online learning easier. It was also emphasized that user needs be emphasized when creating systems as course design positively effects perceived usefulness.

There is also reason to believe that distance learning still has a social aspect. If a student perceives themselves as having larger social presence in online learning environments they tend to perceive their performance as higher in addition to viewing their instructors favorably (Richardson & Swan, 2003). This is further supported as perceived interaction has a positive relation to adoption (Liu, Chen, Sun, Wible, & Kuo, 2010).

Because research indicates that that there are other factors that have to be worked into the technology acceptance model to improve it's effectiveness in determining the likelihood of an individual adopting a system it may be the case where it isn't the most appropriate model for

Kent State University to use in their decision making process, at least not in its original form. Certain factors identified as important (but not limited to) include;user enjoyment, self-efficacy, subjective norms, and course design.

Recommendation:

It is my recommendation that Kent State's strategic decision team use the TAM2 model in deciding whether or not to implement more internet based distance learning options. My reasoning behind this is that much of the research available supports using TAM as a model in gauging the effectiveness of an online program, however they all require the addition of new variables to capture meaning in what the model is representing. By examining the variables used in outside research it is my goal to find a model that is capable of capturing the same correlation between previously mentioned variables without being overly complicated.

The TAM2 model is an evolution of TAM which includes social aspects such as social deficit, communication need, contribution need, social norm, and trust (Brandyberry, Li & LIN, 2010). Additionally the model also includes technology self-efficacy as being represented mostly in perceived ease of use, which is supported in previously mentioned research concluding that perceived ease of use was less of a consideration in tech savvy groups.

It is my hypotheses that the most critical aspect to the success of online distance learning programs will be how social aspects such as forums, instant messaging, video calls, etc are implemented into the program. It has been shown that there is a correlation between the

perceived social presence and satisfaction with performance and instructors (Richardson & Swan, 2003) in addition to evidence of correlation between perceived interaction and adoption (Liu, Chen, Sun, Wible, & Kuo, 2010). These variables could be captured by the contribution need and community need of TAM2, meaning that any social aspects of Kent State's course design would enhance the perceived usefulness aspect of TAM2.

Trust is also a contributing factor to the TAM2 model. As mentioned previously enrollment for public and private institutions is up while for-profit institutions is down. This is possibly an indicator that TAM2 is ideal to use for Kent State's strategic decision as the reason for discrepancy could be related to public trust in established public and private institutions for higher education vs ones that are run for profit.

The social norm aspect of the TAM2 model could also capture some of the correlation seen in research based on the old TAM model. As online distance learning becomes more prevalent it could be the case where laggards feel disadvantaged from not taking online classes, or it could be the case that as social aspects of the system are enhanced performance and adoption of systems are increased due to recognition from other people (Park, 2009).

One variable discussed previously but not falling under the social aspects of TAM2 is the user enjoyment of the system. My recommendation would be that this is an aspect that needs to be tactically assessed and worked into the online learning system in the form of interactive learning activities. A system that is more enjoyable to use is likely to be more widely adopted, increasing the social norm in addition to increases in perceived usefulness, which will be shown in the model.

Conclusions:

When using TAM2 to evaluate whether or not to pursue online distance learning Kent State's strategy team needs to consider several factors doing their decision analysis. It's been found that perceived ease of use doesn't have a large impact on intent, so their main focus should be on perceived usefulness and the factors that effect it. The first of which is going to be the social aspects of TAM2 and the course offerings abilities to fill those needs. If someone is attending Kent State currently would the online offering fill a social deficit, or would it fill a contribution need and allow the student to participate in a larger discussion? In the case of someone not currently a student would their social needs be met better in the online programs than in face to face classes?

If it is the case that the users of the online learning systems don't feel that the classes are able to fill the social deficit of in person education then it may be the case that Kent State changes the way the classes are marketed. Instead of a substitution to online learning certain technology changes can be incorporated into the classroom, or the online distance learning programs can be offered to students that want to go to school but can't due to non-traditional schedule.

Social norms are also something that need to be considered when pursuing an online strategy. If the public perception of online distance learning is that the education received is inferior to one received in a classroom, Kent State needs to evaluate how they market their course offerings or reevaluate rolling them out.

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The topic I have chosen to focus on is the alleged use of illegal emissions defeat devices by Fiat Chrysler Automobiles (FCA) in the 3.0L EcoDiesel engines offered in the Ram 1500 series pickup trucks and Jeep Grand Cherokees. I will be attaching 3 different articles to this report, all from bloomberg.com, as I feel it gives a good summary of the proceedings in the FCA diesel case.

The first article[1] was posted January 13th, 2017. It outlines what vehicles were effected by the alleged cheat devices, and began to draw comparisons to Volkswagen Auto Group's infamous scandal in which they programmed cars to detect when the car was being emission tested, and to go in a cleaner, and reduced power mode so that they could comply with emission standards. The article notes that Robert Bosch GmbH, the German electronics company that is also under investigation for supplying software to VW, is also implicated in this investigation as they also supplied software to FCA. The article also included Fiat Chrysler's response, which was essentially that this is unrelated to the VW scandal, and that FCA was in no way trying to circumvent EPA regulations, or as the CEO Sergio Marchionne stated "technically deficient, but not immoral".

The second article[2] was posted May 17th, 2017. In this article the author begins to detail estimates to the penalties FCA could face should the US Justice department decide to take FCA to trial. FCA held strong that their emission control devices weren't designed to cheat test like VW's were, and that the issue was simply a reporting error with disclosing the defeat devices to the EPA. The article reported that FCA was inadequately able to explain the parts of it's software that disabled emission controls to the EPA, though it added that they were still in continuing talks with FCA hopeful that it could get approval on it's emission control software so that it could sell it's diesel Ram 1500 trucks and Jeep Grand Cherokees in the 2017 model year.

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[1] "Fiat Chrysler Faces U.S. Criminal Emissions Investigation"

[2] "U.S. Prepartes Lawsuit Over Fiat Chrysler Diesel Emissions"

The third and final article[3] begins with the headline that Fiat Chrysler did get approval to sell the vehicles with updated emission software installed, though it add that there is a separate lawsuit against the company in the Northern District of California for the 2014-2016 model year of the same vehicles. FCA was also seeking approval to update the software on previous model years of the EcoDiesel engines, though not required by the EPA.

In my opinion this entire issue was a technical oversight that was exposed and amplified as a result of the Volkswagen diesel scandal. From my understanding the FCA issue was simply that they failed to disclose certain emission defeat devices, something that could have simply been the result a failure in communication in departments. This is drastically different than VW's intentional hiding of the actual emission figures their cars were producing by telling the engine control unit (ECU) to detect when the car was being tested, and go into a different cleaner running mode.

In the case of FCA, aside from more thorough reporting practices to the EPA I don't believe there is much they could have done to prevent this from happening, though I do think they should be commended for the way they handled the issue. Though their CEO switched from say they don't have any emissions control devices to saying they never meant to mislead the EPA[4], it is my belief that he was simply uniformed with how the emission software worked, and was attempting to distance the company from the VW scandal, which is clearly beneficial to all parties involved. The second thing that I thought was commendable was that FCA was working with the EPA to resolve the issue and create software that satisfied their requirements, which would be both beneficial to the consumer by not requiring them to sell their vehicles back, have extensive emission modifications done, or take a hit in vehicle depreciation, while also being beneficial to FCA since they wouldn't have to foot the bill or have their integrity come into question when it comes to light that their supposed "most fuel efficient pickup" failed to meet EPA regulations. The third thing I thought they did right as a company was seeking approval to

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[3] "Fiat Chrysler Can Resume Sales of Diesel Jeeps, Rams in U.S."

[44] "Fiat Chrysler Faces U.S. Criminal Emissions Investigation"

update the software on all EcoDiesel models, something that not only shows they are continuing to support their previous customers, but trying to stay ahead of EPA regulations.

In the case of this dilemma, I don't feel that any punitive measures needed to be taken. It doesn't appear to me that Fiat Chrysler was intentionally negligent, and starting a witch hunt for diesel car manufactures because of the actions of Volkswagen Auto Group is a bad way to foster development for cleaner diesel engines. Currently the EcoDiesel Ram trucks are the most fuel efficient on the market, so it is my opinion that punishing FCA for a small oversight in reporting would dissuade other manufacturers from following suit and creating fuel efficient light trucks.

Sources:

Beene, Ryan, and Jamie Butters. "Fiat Chrysler Can Resume Sales of Diesel Jeeps, Rams in U.S." *Bloomberg.com*, Bloomberg, 28 July 2017, www.bloomberg.com/news/articles/2017-07-28/fiat-chrysler-gets-approval-to-sell-diesel-jeeps-rams-in-u-s. Accessed 17 Sept. 2017.

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