Samsung and Volkswagen Crisis Communication in Facebook and Twitter
A Comparative Study

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Abstract: Since September 2015 at least two major crises have emerged where major industrial companies producing consumer products have been involved. In September 2015 diesel cars manufactured by Volkswagen turned out to be equipped with cheating software that caused NO2 and other emission values to be reduced to acceptable levels while tested from the real, unacceptable values in normal use. In August 2016 reports began to appear that the battery of a new smart phone produced by Samsung, Galaxy Note7, could begin to burn, or even explode, while the device was on. In Nov. 2016 also 34 washing machine models were reported to have caused damages due to disintegration. In all cases, the companies have experienced substantial financial losses, their shares have lost value, and their reputation has suffered among consumers and other stakeholders. In this paper, we study the commonalities and differences in the crisis management strategies of the companies, mostly concentrating on the crisis communication aspects. We draw on Situational Crisis Communication Theory (SCCT). The communication behaviour of the companies and various stakeholders during crisis is performed by investigating the official web sites of the companies and communication in Twitter and Facebook on their own accounts. We also collected streaming data from Twitter where Samsung and the troubled smart phones or washing machines were mentioned. For VW we also collected streaming data where the emission scandal or its ramifications were mentioned and performed several analyses, including sentiment analysis.

1 INTRODUCTION

Since September 2015 at least two major crises have emerged where major industrial companies producing consumer products have been involved. Volkswagen crisis became public on Sept. 18, 2015 when US Environment Protection Agency (EPA) published its findings concerning cheating software in certain VW diesel engines (for instance, of type EA189) and required actions from Volkswagen Group in the USA to rectify the situation. The financial losses to Volkswagen due to the crisis have been estimated to 18,2 bn euro and it will cut 30000 jobs (Times, 2016). It also withdraws from WRC class (WRC, 2016) to cut costs, after it has won world championships several times. The damages to the reputation of the company have been substantial. We have described the main events until June 2016

in (Zhang et al., 2016), where we also analysed the crisis communication of the company in social media around the issue.

Another somewhat similar crisis broke in August-September 2016, when it turned out that the new smartphone model Galaxy Note7 manufactured by Samsung might catch fire or even explode because of battery problems. This happened in a few days and weeks after the model was introduced to the market in the USA and elsewhere in August-September 2016. In Oct. 2016, Samsung stopped producing the troubled phone model and ran recall programs in the markets where the phone had been sold. Some estimates state that financial losses due to the failed phone could be as high as 10 billion US dollars (Mullen and Thompson, 2016). Damages to the reputation of the company have been estimated to be high as well.

In the social media era, organizations encounter several challenges from public relations and societies. In the presence of social media, continuous monitoring is necessary, as social media has a significant influence on the reputation and even survival of organizations. This research provides insights on the crisis communication strategies of the two companies, VW and Samsung, as observed in Twitter and Facebook communications on the accounts controlled by them and on other accounts controlled by ordinary users, various media and other stakeholders.

In this paper, we answer the following research questions:

1. What were the crisis response strategies of VW compared to Samsung?

1.1 What kind of compensation measures did the companies perform?

1.2 How quickly did companies reply to their customers' messages online?

1.3. What crisis communication strategies did these companies possibly use?

2. What kind of customer feedback did companies want to conceal (in order to protect their reputation)? How many messages have they removed from their FB accounts?

2 THEORETICAL FRAMEWORK

The scholarly discussion on crisis communication has paid considerable attention to focal organizations. In general, response strategies are built based on various crisis types. According to Meng (1992) a trigger event related to performance in public relations, for example caused by unethical action, can function as a catalyst to activate a crisis.

CSR challenges are crises when expectations created are not delivered by an organization and can thus result in a reputational crisis (Friederike Schultz and Stefan Wehmeier, 2010; Timothy Coombs and Sherry Holladay, 2015). The concept of para-crisis, a crisis primarily existing in web discussions, illustrates new ways of crises to manifest themselves fast, making lack of responsibility in organizational behavior widely known among the public (Coombs and Holladay, 2012).

The *Situational Crisis Communication Theory* (SCCT) (Coombs, 2007) is utilized in the sequel while seeking answers to the research questions.

In order to accommodate various crisis types, Situational Crisis Communication Theory (SCCT) was developed by Coombs (2007) as a mechanism to guide the response strategies. Its components are

shown in Figure 1. As an evidence-based framework, SCCT theory is supposed to provide specific response strategies in various crisis situations.
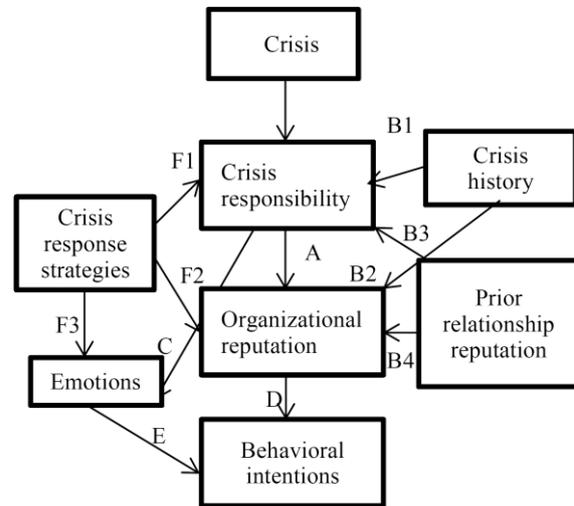

Figure 1: Components of SCCT theory (Coombs, 2007).

Organizational reputation refers to the reputation of the organisation among the stakeholders and its maintenance during a crisis. According to (Coombs, 2007), three factors in the crisis situation shape the threat to the reputation of the organization. These are initial Crisis responsibility (attribution), Crisis history, and Prior relational reputation. Crisis responsibility concerns the question, to which extent the focal organization can be deemed responsible for the crisis and possible (lethal) injuries for the people, losses of property, product failures, etc. Crisis Response Strategies refer to the strategies of the focal organization that it can apply during the crisis. An important part are of this component are the crisis communication strategies towards stakeholders, including employees, customers, authorities, traditional media and social media audiences. Other means include e.g. financial compensations for customers who have experienced financial losses, injuries, etc. Providing compensation in the case of product or services failure indicates positive intentions of the focal organization, whereas apology uttered towards stakeholders show that the organization is taking responsibility for its actions and failures.

Emotions refer to the emotions of stakeholders raised by the crisis and Behavioural intentions refer to the behaviour of stakeholders directly or indirectly towards the focal organisation. The arrows in Fig.1 describe causal and other relationships between the components (see (Coombs, 2007) for further information).

An organisation can be involved in a crisis at least in three major ways: it can be a victim (victim cluster in (Coombs, 2007)); be involved in various unintentional accidents (accidental cluster), and be involved in events that could have been prevented by the organisation (preventable cluster). A typical instance of the first cluster is an earthquake or terrorist attack that damages organization's infrastructure. Technical-error accidents are typical instances of the unintentional accidents. In the last cluster an organization knowingly placed people at risk, took inappropriate actions or violated law/regulation. Volkswagen case clearly belongs to this cluster, whereas Samsung's cases would belong more to the accidental cluster.

A crisis evolves during a certain period of time. (Dougall, 2008), in agreement with Meng (1992) mentions five crisis stages: early; emerging; current; crisis; dormant. Stages follow each other in time with growing intensity until the crisis falls into a dormant stage. Simultaneously, issues become less controllable by the focal organizations. Social media provides a fertile ground for the spread of issues. The process can be regarded as an issue contagion process (Coombs, 2002). Therefore, social media can fast turn an issue from an early to crisis stage with a simultaneous high media attention. From the organizational perspective, before an issues reaches a crisis stage, response strategies could be utilized to prevent the further spread of an issue (Dougall, 2008). This activity can also be called preventing the crisis. An example might be that the sales of a product or service are halted. The strategies applied before an issue turns into a crisis can prevent it from reaching the full crisis stage and thus decrease reputational and financial losses. Alternatively, neglecting para-crisis could cause giant financial losses and require longtime recovery.

3 CASE STUDY DESCRIPTIONS

In this section, we compare the two crises and crisis (communication) strategies the companies used. To answer our research questions, we provide analysis of the content the companies and stakeholders published in and removed from the social media, in our case Twitter and Facebook platforms.

3.1 Case Description: Samsung Galaxy Note7 and Washing Machine Crisis

The global sales of Samsung Galaxy Note7 smartphones started in August 2016. Soon after the devices were taken into use by customers, there were multiple reports that the phone had overheated, caught fire, or even exploded in August-September 2016. The company admitted the problem on Sept. 2, 2016. Samsung first explained that the defect batteries were the cause for this problem. The first solution was to replace the batteries leading to a recall of 2.6 million Note7 smartphones. The formal recall announcement in the US was issued on Sept. 15, 2016. After the recall and battery replacement the same problem still persisted. The company decided to stop manufacturing and selling Note7 on Oct. 11, 2016. The phone was made non-operational on Dec. 19, 2016 (Wiggers, 2016) by a software update. The recall crisis has exerted fluctuations in the stock market. Samsung's shares lost $18 bn value in October 2016. The public begins to pay attention to how Samsung resolves the quality control problems and crisis responses. Table 1 below contains the main phases of the Samsung Galaxy Note7 crisis.

Another problem, this time with the Samsung washing machines, also emerged during autumn 2016. On Nov. 4, 2016 the company announced a recall of 2.8 million machines that vibrated strongly and partially disintegrated. 34 washing machine models have been affected (Stieg, 2016). On Nov. 7, 2016 Samsung published apologizes in major US newspapers (Washington Post, the New York Times and the Wall Street Journal) for the troubled Note7 and the malfunctioning washing machines (Herald, 2016). The apology was signed by Gregory Lee, the president and CEO of Samsung Electronics North America. In the text Samsung promises to find out what went wrong with Note7 and the washing machines and publish the findings. For Note7 the findings were published in January 2017. The design of the batteries and their fitting have evidently been the source of the problem (Pierre, 2017), whereas the phone design has otherwise been intact.

3.2 Case Description: Volkswagen

The Volkswagen emission scandal has been followed in Zhang, Veijalainen and Kotkov (2016) from Sept. 2015 to June 2016. In this context we present results based on a continued data collection from Twitter and Facebook and also present sentiment analysis results. There is a detailed chronology of events (in German) until the beginning of Nov. 2016 at (NDR, 2016a). We leave out the details for brevity.

Traditional media has played an important role in both, but social media has also spread correct and

not-so-correct information. In the sequel we will mostly concentrate on the crisis communication strategy of the companies at Twitter and Facebook.

Table 1: Samsung Galaxy Note7/Washing machine crises story line.

Date	Issues
2 Aug 2016	The launch of Samsung Galaxy Note7 at a media event in New York
19 Aug	The release of the Samsung Galaxy Note7 in 10 markets including U.S. and South Korea.
31 Aug	Shipment delayed by Samsung with quality control problems.
1 Sep	Media reports reported Samsung was going to launch the recall, and the starting of sales in China.
9 Sep	Consumer Product Safety Commission of U.S suggested to customers stop using Note7
15 Sep	Consumer Product Safety Commission of U.S. officially publish the info about 1 million Note7 recall.
19 Sep	In Chinese market, Samsung announced that the cause of the fire was external heating.
29 Sep	Samsung announced that over 1 million users worldwide were using Note7 with safe battery.
1 Oct	The resuming of sales on new Note7s in South Korea.
6 Oct	An U.S aeroplane was evacuated because of smoke from Note7 on board.
10 Oct	Samsung adjusted the shipment of Note7 for inspection.
11 Oct	Samsung permanently ended production and sales of Note7 after it failed to fix the problems on defective devices.
14 Oct	The department of transportation and Federal Aviation Administration of U.S. officially banned Note7 from all U.S. flights.
18 Oct	Samsung launched a roll out airport exchange program to allow Galaxy Note7 owners to swap their phones before a flight.
27 Oct	Samsung's investigation states that it is essentially a quality control problem.
29 Oct	Samsung held a media conference in China and let the personnel kneel down to show the gratitude.
4 Nov	Nearly 85% of the Note7 phone had been replaced through the exchange program in U.S.
4 Nov.	Samsung announced a recall of 2.8 million washing machines
7 Nov	Samsung published apologizes in major US newspapers (Washington Post, the New York Times and the Wall Street Journal) for the troubled Note7 phone and the malfunctioning washing machines
19 Dec.	Note7 phones will be inactivated
23 Jan. 2017	A report is released detailing reasons for Note7 problems

4 TWITTER AND FB DATA COLLECTIONS AND ANALYSIS

To answer research questions, we collected data related to both crises from Twitter and Facebook. We also applied sentiment analysis to the collected data and analysed the obtained results. We also studied traditional media analyses to answer the research questions.

4.1 Twitter Data Collections and Analysis for Samsung

From 15 September to 8 November 2016, there are 1081212 tweets collected which are related to Samsung crises, the selection attribute for the language is 'en', i.e. English. . Our data set contained tweets also in other European and Asian languages, but we decided to concentrate on the English tweets. Based on the collection, sentiment and topic analysis of the tweets is built with R-studio.
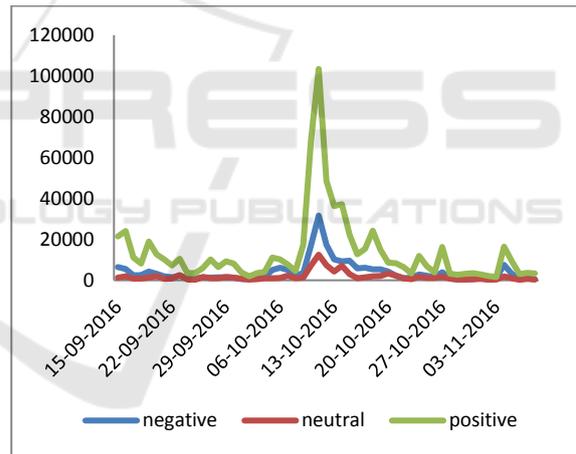
Figure 2: Sentiment analysis of collected tweets for Samsung.

Another Twitter dataset was collected on Sept. 24, 2016 and on Nov. 11, 2016. The target accounts where verified Twitter accounts controlled by Samsung. These included @SamsungMobileUS, @SamsungUS, @SamsungMobile, @SamsungUK, @SamsungMobileME that tweet mostly or exclusively in English, but there were also accounts tweeting in other languages, like Korean. The collection consisted of about 21000 tweets. The oldest was sent on July 20, 2012 and the latest on Nov. 10, 2016. About 12000 tweets were replies to earlier tweets of customers. Among those 2617

tweets were generated by a Samsung controlled account above as a reply in English since Aug. 1, 2016. We could collect 1618 of the original tweets Samsung had replied to between Aug.1, 2016 and Nov. 10, 2016. This means that we could recover only about 62% of the latter tweets sent to some Samsung verified account. Those 1618 tweets with both the tweet text and the reply to it by Samsung along the timestamps and screennames are of interest in this context.

The sentiment analysis reveals that majority of all tweets from customers are positive during August 2016. If there are complaints, they mostly concern the delays in delivery of Note7, or problems in some other phone models. On Sept. 2, customers begin to send more frequently tweets about global recall, especially to SamsungMobileME (i.e. Samsung Middle-East) and later to SamsungMobileUS etc., Samsung accounts begin to refer to the official statement of Samsung at https://news.samsung.com/global/statement-on-galaxy-note7. The tone of the customers is mostly questioning, "What should I do; when will a replacement come? "etc. Starting Sept. 2, almost all tweets concern Note7 recall issues for several weeks during Sept. 2016. Some tweeters are impatient and blame Samsung for bad service.

Looking closer, the first tweet concerning the overheating of Note7 in our data set is from the user linarhujer from 2016-08-26 20:29:53 and it reads:

'@SamsungUS @SamsungMobileME @Samsung_Saudi what about the explosion of the note7 when we charge it?
Please answer https://t.co/rtA96hXCXL'

2 days, 13 hours and 17 minutes later SamsungMobileME replies:

'@linarhujer @SamsungUS @Samsung_Saudi Hello! Please send us your contact information immediately. We hope you are alright!'

Looking at the overall picture of the tweeting behaviour of the company, the accounts below do not directly help customers, but relay them to special technical support or similar departments through a direct message request. SamsungMobileUS has replied to customers almost always in 24 hours, average response time being about 5½ hours. Other accounts have been slower, except SamsungMobile, but the sample (6 tweets) is very small.
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Table 2: Samsung reply activity in Twitter 1.8.-10.11.2016.

Account of Samsung	Nr. of tweet pairs	Percentage of replies in 24 hours	Avg. resp. time
SamsungMobileUS	980	98	5h26'
SamsungUS,	86	97	11h55'
SamsungMobile	6	100	0h18'
SamsungUK	410	39	1d20h
SamsungMobileME	136	65	1d9h

Concerning the streaming data set Figure 2, shows that positive sentiments have prevailed every day. There is no exception in this collection. As concerns the sentiment of the customer tweets in Table 2, they follow similar pattern; positive or neutral sentiment is stronger than negative one.

When comparing the initial phases of the crisis of VW in Sept. 2015 and Samsung in Sept. 2016, Zhang et al. (2016), there were fewer tweets with a positive sentiment in VW's case. This raises the question how response strategies are adapted to different crisis situations.

In the context of Note7 recall in the U.S market, Samsung has launched a compensation plan (http://www.samsung.com/us/note7recall/) which contains the refund and exchange program. Former Note7 users can choose between several options such as, dollars bill credit under different conditions.

In the Chinese market, the recall plan was different in comparison to US market (http://www.samsung.com/cn/news/product-/galaxy-note-7-recall-details). It offered less cash compensation, blanked by the media announcement that the burning cases were caused by external heating (http://www.techtimes.com/articles/178492/20160920/samsung-note-7-explosions-caused-external-heating-battery-china.htm). It had been interpreted by local media as an irresponsible explanation. Irresponsible behavior without effective measures of the focal organization can turn an almost crisis into a real crisis which causes financial and reputational losses.

On Oct. 11, 2016, Samsung had ended the production and sales of Note7 permanently after failing to fix the problems that caused the overheating and even fire or explosion of the defective devices. The devices still in the hands of customers were planned to become inactive and useless on Dec. 19, 2016, after the last software update.

4.2 Twitter Data Collections and Analysis for VW

There were three different data collections for VW case. First, the tweets sent from VW controlled (verified) Twitter accounts were collected as far as it was possible on Nov. 15, 2015. We found 22 different accounts of this kind. We could collect circa 18000 English tweets sent from these accounts since Sept. 18, 2015. About 10400 of these were replies to earlier tweets. We also collected these earlier English tweets that were replied to by some verified VW account during the above period. We could not collect them all, but only about 6800 tweets, i.e. under 70 %. The rest were either removed or protected so that they could not be collected through the REST API of Twitter.

As concerns the replied-to tweets, a scan through them reveals that the overwhelming majority consists of complaints regarding bad service or bad quality of the cars, or both. Roughly 50% of the complaints are directed towards @VolkswagenIndia, but also @VolkswagenSA gets similar complaints. @UKVolkwagen gets more various questions. Only a few tweets mention the emission scandal. The first instance is a side remark in a tweet in Sept. 2015. Later, during 2016 the recall arrangements are mentioned more often. As an overview one can state that English tweets sent towards verified accounts of VW deal with technical or other problems of individual customers with their cars and the services offered by dealers and the sentiment is mostly negative or at most neutral. This result was established by scanning through the tweets manually and reading their contents.

In addition, we collected streaming data since June 23, 2016 with the Tweepy (www.tweepy.org) predicate ['vw','VW', 'volkswagen', 'Volkswagen' 'scandal', 'reputation', 'dieselgate','vwgate', 'emission','fraud'] and later (since Nov. 17, 2016) with ['vw','VW','volkswagen','audi', 'Audi', 'Volkswagen' 'scandal' 'reputation', 'dieselgate', 'vwgate' ,'emission']. The resulting raw data contains 90-95 % irrelevant data. The relevant data has been selected by running a filter program after the tweets have been parsed into database tables. This resulted in about 360000 relevant tweets. These tweets can be used to characterize the overall sentiment of a wider public towards VW during the second half of 2016. This is, however, for further stydy.

We looked at the response times of VW in Twitter. These tell about the attitude of the company towards their customers concerns and are at the same time an expression of the communication strategy. There were 9627 English customer tweets with a response from @VW (2321), UKVolkswagen (2579), @volkswagenindia (2090), VWMiddleEast (105), Volkswagen_NZ (11), VWcanada (288), Volkswagen_MX (23), VolkswagenNL(15), vwbelgique(5), VolkswagenSA (2053), vw_france(5). The oldest reply was sent at 2015-08-10 11:02:04 and newest at 2016-11-15 12:17:43.

Table 3 shows the response times to the customer tweets by various accounts of VW. Over 50 per cent of the tweets are replied in 24 hours or less, but the tail is rather long rendering average response time of a month in most cases.

Table 3: Volkswagen's reply activity in Twitter 10.8.2015-15.11.2016 (major English accounts).

Account	Nr. of tweet pairs	Percentage of replies in 24 hours	Avg. resp. time
VW	2321	58	36 d
UKVolkswagen	2579	80	29 d
volkswagenindia	2090	71	25 d
VolkswagenSA	2053	56	108 d
VWcanada	288	56	29 d
VWMiddleEast	105	53	54 d

4.3 Facebook Data Collections and Analysis

To answer research questions 1 and 2, we collected posts, comments and replies from Facebook groups dedicated to Samsung (SamsungMobileUSA, https://www.facebook.com/SamsungMobileUSA) and Volkswagen (Volkswagen, https://www.facebook.com/VW/?brand_redir=DISABLE). We collected data twice to detect posts, comments and replies that had been removed from the mentioned pages.

4.3.1 Samsung FB Data Description

Samsung owns several Facebook pages, such as Samsung Support, Samsung Mobile and Samsung US. We chose SamsungMobileUSA, as the page is related to Note7 and users are very active on this page compared to other pages. Table 4 summarizes characteristics of two datasets regarding Samsung. We finished our first data collection from the Samsung page on September 23, 2016. This data collection included posts, comments and replies published from August 8 till September 22, 2016. Our second data collection finished on November 2, 2016 and included content posted from August 8 till October 31, 2016.

Table 4: Samsung FB data collection summary.

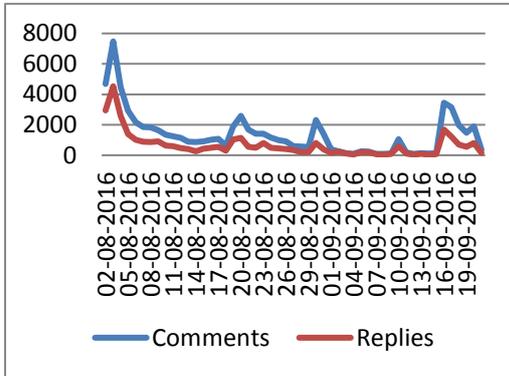| Date of data collection	Nr. of posts	Nr. of comments	Nr, of replies	Nr. of Samsung replies
23.9.16	113	81614	37430	1448
02.11.16	25	45299	18931	983

Figure 3: Comments and replies on SamsungMobileUSA Facebook page.
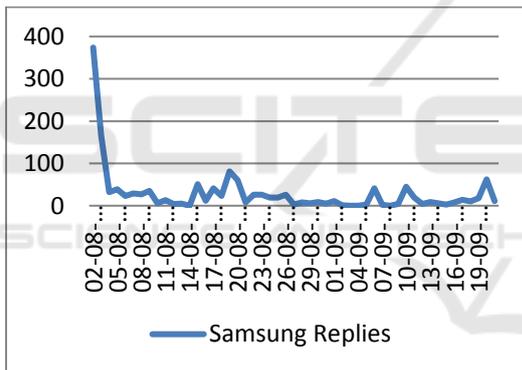

Figure 4: Replies of Samsung on SamsungMobileUSA Facebook page.

Figures 3 and 4 demonstrate the numbers of comments and replies posted at different dates at SamsungMobileUSA Facebook page (the first data collection). Replies in Figure 3 include customer replies and Samsung replies, while replies in Figure 4 include only replies of the company. The first peaks (around August 2) on both charts corresponds the release of Note7, the consecutive peaks are caused by discussions and complaints related to the Note7 battery problem. The number of replies from the company changes proportionally, but it is much lower than the number of replies of the customers; the more comments and replies overall the more Samsung replies.

4.3.2 Volkswagen Data Description

Table 5 summarizes characteristics of two datasets regarding VW. Our first data collection finished on April 13, 2016 and included content published from September 17, 2015 till April 12, 2016, while our second collection finished on November 23, 2016 and included content published from September 17, 2015 till September 24, 2016.

Table 5: VW data collection summary.

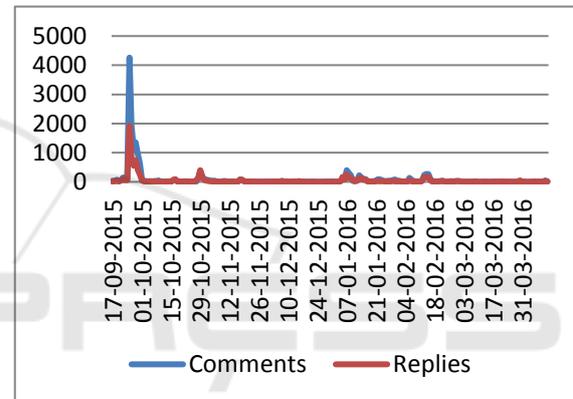| Date of the collection	Nr. of VW posts	Nr. of cust. comments	Nr. of cust. replies	Nr. of VW replies
13.04.16	40	17357	9552	103
23.11.16	39	16723	8488	145

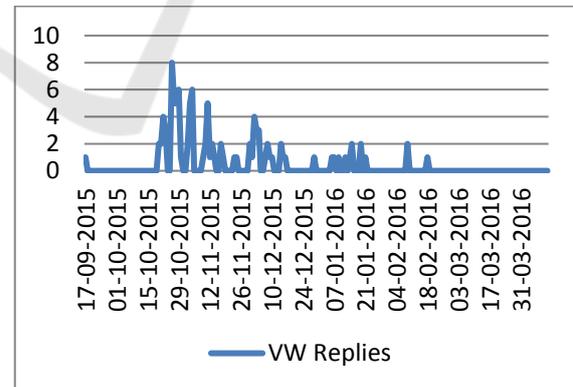

Figure 5: Comments and replies on VW Facebook page.

Figure 6: Comments and replies on VW Facebook page.

Similarly to the Samsung case, Figures 5 and 6 demonstrate numbers of comments and replies posted at different dates in VW Facebook page (the first data collection). The number of replies at each date is proportional to the number of comments at that date. However, the relative number of VW

replies is much lower than that of Samsung. Among all the collected replies on the VW page 1% (the absolute value is 103) of replies belong to VW, while for Samsung this value is 3% (the absolute value is 1448).

4.3.3 Facebook Response Time Analysis

To answer research question 1.2, we investigated how quickly companies responded to customers on Facebook.
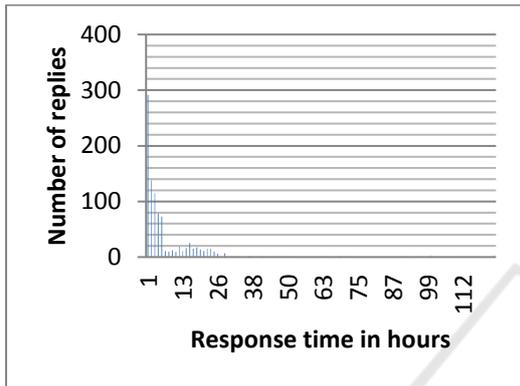

Figure 7: Response time distribution on Samsung Facebook page.

Figure 7 demonstrates the distribution of delays between customers' comments and Samsung replies to them (the second data collection). The distribution has the following characteristics: mean=5.46 hours, standard deviation=10.65 hours and median=1.63 hours. Most comments (544) are replied faster than in 3.7 hours. The quickest reply was published in 22 seconds after the comment, while for the longest reply this value is 5 days. This shows that Facebook is considered as a more important channel towards stakeholders than Twitter, where the responses take longer to generate.
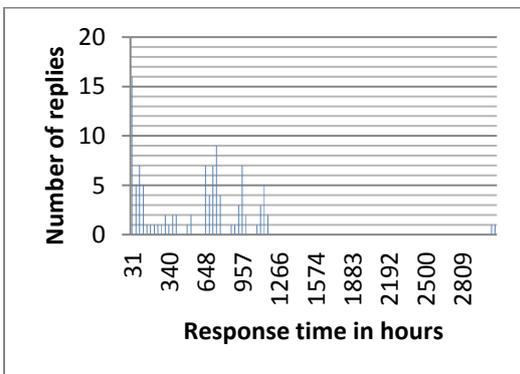

Figure 8: Response time distribution on VW Facebook page.

Figure 8 demonstrates the distribution of delays between customers' comments and VW replies to them (the second data collection). The distribution has the following characteristics: mean=23.57 hours, standard deviation=21.81 hours and median=27.0 hours. Most comments (55) are replied earlier than in 27 days. The quickest reply was published in 2.7 hours after the comment, while for the longest reply this value is 128 days.

The analysis of both distributions suggest that VW seems to reply to customers' comments slower than Samsung due to the minimum, maximum response times and response time form most comments, considering that data collection in each case was conducted in different periods of time after the crisis. Our second data collection regarding Samsung was conducted in two months after Samsung recall, while for the VW this time is 1 year and 1 month.

4.3.4 Facebook Removed Content Analysis

To answer research question 2, we conducted two data collections for each company. We then compared the collected content and detected removed posts, comments and replies.

Table 6: Removed content.

Company	Nr. of company posts	Nr. of cust. com-ments	Nr. of cust. replies	Nr. of company replies
Samsung	22 (19%)	52148 (64%)	8243 (22%)	773 (54%)
VW	14 (35%)	2486 (14%)	2008 (23%)	12 (8%)

Table 6 summarizes numbers of removed posts, comments and replies on Facebook pages of each company. Posts can only be removed by the owner of the Facebook page, while comments and replies of customers could be removed by the owner of the page or by the author of the content. All posts removed by Samsung were about Note7, while some posts removed by VW were related to special offers.

The preliminary analysis of the removed contents indicates that there were some very negative comments. Why the companies removed certain posts and comments and replies is not clear. Perhaps they have come to the conclusion that removing them is better for their reputation?

4.3.5 Facebook and Twitter Topic Analysis

Table 7 contains the text modeling results from

Facebook and Twitter collection. R-studio was used to perform the text mining. Reply messages from SamsungMobilUS were tested and extracted into topics. The techniques are the same that were used for the sentiment analysis.

Table 7: The most frequent topics.

No.	Topic 1 Samsung	Topic 2 Samsung	Topic 1 VW	Topic 2 VW
1	Thanks	samsung	pretty	can
2	Galaxynot	galaxynote	check	volkswagen
3	Smsngusnerecal	support	point	please
4	Reach	exchange	danisordo	contact
5	Available	please	meeting	details
6	Can	check	warranty	will
7	Get	info	match	wrc
8	New	help	certainly	car
9	Like	hey	half	share
10	satefy	Can	crankandpiston	new

Topic Samsung represents the replies of SamsungMobileUS to users' comments. Topic VW represents several accounts that VW group has used to reply to users. Because the word "galaxynot*" has appeared both in topic 1 and 2 in the Samsung stream collection, we assume that Samsung's response strategies were focused on the recall of GalaxyNote7, whereas in the VW group, no specific car series appears.

5 THE ABOVE CRISES IN THE LIGHT OF SCCT

What is common to the crises, what different? First, let us look at the responsibility aspects, i.e attribution issues. Both companies can be blamed for the faulty consumer products, so it is clear which entity to blame for the problems. Volkswagen case clearly belongs to the Preventable cluster, but Samsung case belongs more clearly to the Accidental cluster, although there are features that would allow it to be classified also to the Preventable cluster. With a more rigorous quality control the problems with the shortcut batteries could have been avoided or detected early enough.

One essential difference is that in the VW case there was not an immediate safety hazard for the drivers or owners, but rather, the emissions caused an environmental hazard and indirectly possible health problems for a wider population. The products violated environment norms set in force by the local authorities. In Samsung' case, the overheating, even exploding, phones posed a direct health threat for the users and an indirect threat for, for instance, fellow passengers on any flight with an owner of a Note7. They also violated consumer safety norms. The major difference is that VW has deliberately designed and implemented the cheating software into the car engines; it is not a mistake some designers or production plants have made. In Samsung' case the company first blamed the battery manufacturer for the overheating and explosions, but it rather seems that there is a flaw in the phone design (Mullen and Thompson, 2016). This is certainly not a deliberate design flaw, but rather a mistake and points to a flawed quality control inside the company.

Whereas Samsung has admitted their failure to meet high quality standards and apologized for the troubles this has caused for the stakeholders, especially for the consumers using the products, Volkswagen's strategy has been to deny the problems as long as possible. As discussed in (Zhang et al., 2016), the NOx emission cheating was denied by the company almost a year, before the US environment authorities made it public in Sept. 2015 and the company had to publicly admit the existence of the cheating software and apologize for the harm caused to the stakeholders. Later it has been admitted by persons involved that the cheating software development was started already in 2006 (NDR, 2016b). The resigned CEO of VW, Martin Winterkorn, knew about the software evidently since May 2014 (NDR, 2016b). Since spring 2016 there have been reports that in some Audi gasoline and diesel engines there is further cheating software; some Audi models appear to have allowed the cars to cheat in carbon-dioxide emissions when tested. They press the real CO_2 values lower in testing situations, while they are much higher when the car is in real operation on the road. The cheating software was found in an Audi car during summer 2016 by California Air Resources Board (CARB). The issue was published by CARB according Washington Post (Smith, 2016) relying on Bild am Sonntag report (in German) from Nov. 4, 2016. So it seems that the overall strategy of VW is to admit cheating only if caught. From the chronological record of events in (NDR, 2016a), it is evident that the highest management knew about the cheating software for NOx at the end of August 2015, but most probably much earlier.

The Samsung case shows similar but also

different traits. They have claimed in China that the problem with overheating comes from external sources. They also launched Note7 in China, while the recall was announced already in the US and European markets. On the other hand, the defects of the Note7 were evident for the consumers, while the cheating software in VW and Audi cars was not at all evident for ordinary car owners. Revealing its existence required sophisticated emission test series. In both cases various authorities have stepped in and have played an important role in the development of the crisis. In the VW case the US environment protection authorities used their power. In Samsung case the aviation safety authorities and airlines prohibited to carry Note7 on board.

Both companies have suffered considerable financial losses; Samsung perhaps 10 bn dollars, VW 18 bn dollars. The duration of the crises might be different. VW crisis still continues after 18 months, whereas Samsung crises might be over in 18 months. The financial losses will still have effect on the companies for years. How long it takes for the reputation to recover among consumers remains to be seen.

6 CONCLUSIONS

The goal of this research is to analyse the crisis strategies, especially communication strategies of VW and Samsung during recent crises. The emission fraud or cheating crisis of VW started on Sept. 18, 2015, when the US environment authorities made public the existence of cheating software in certain VW car engines that detected the test situation and set the NOx emissions down to an accepted level. The authorities had been in contact with the car maker already since 2014, but the company had mainly tried to deny that there is a general problem and the issue was kept secret. Later in 2016 it has admitted that the design of the cheating software had begun already in 2006. During autumn 2015 further car engines were found by US authorities to have the same software installed as those first tested. During the summer 2016 further software was detected by US authorities that functioned in a similar way as the earlier software. Thus, the crisis of VW has had new sub-issues emerging from time to time and corresponding peaks in the number of media reports and social media messages. The crisis has cost VW over 18 billion euro and losses in reputation. The former is caused by fines the company has to pay to the US government and other bodies, recall and reparation costs of the vehicles, customer packages

and lost market share. VW shares have also lost value on the stock markets which has made the share owners angry against the management.

Looking at organizational tweets and replies we attempted to explain what crisis communication strategies were used in various situations. Issues could turn into crises when activators occur, which could be social media discourse, electronic word of mouth, or other triggers. Before turning into a real crisis, effective measures need to be taken to defend and protect the reputation of the focal organization. Otherwise, crises can exert an extremely negative impact on organizations, which may cause financial and reputational losses. In order to prevent the crises to emerge, organizations should not underestimate the power of online communications. Paying enough attention to early stages of a crisis can safeguard the functioning of a focal organization which requires continuous monitoring of public opinions expressed in social media.

In both these cases the crisis broke because of deficiencies in the products and social and traditional media spreading the information about faulty products. Social media also seemed to follow and spread the information.

Our hypothesis was that VW followed the crisis communication strategy that nothing is admitted before one is caught. In this case only authorities could reveal the emission cheating. Thus, it is not to be expected that the company would deny it towards car owners or other stakeholders while interacting with them at social media sites. They can only try to comfort, repair and compensate in monetary terms the damages for the stakeholders. VW has paid compensations only to the US WV diesel car owners, but not for other owners

Long response times to tweets or emails seem to be a major issue in India, in addition to poor service quality. These kinds of things are a problem for any company and tend to cause customers to change to another product.

In Samsung's case the company admitted fast that Note7 devices might be faulty. On the other hand this was evident and it would not be viable to try to deny the fact. At the same time also some washing machine models had issues. The company published in leading US newspapers an apology on Nov. 7, 2016. VW also published a video on Sept. 22, 2015, where the CEO apologized for the wrongdoing, but as far as we know, VW did not publish apologies in newspapers.

Both companies have removed some posts from their Facebook pages. Some comments and replies were also removed. However, Facebook does not

provide information on who removed these comments and replies. All removed Samsung posts were about Note7, while VW removed some posts unrelated to their cars. These related to special offers. Among removed comments and replies we found some positive and negative messages. It seems that the companies did not delete tweets from their accounts, but our collection frequency was too coarse in order to give a firm answer; a tweet might have appeared and disappeared between collections In both cases we could find positive, but also rather negative tweet content towards the focal organisation. On the other hand, the organisations cannot remove the tweets sent by customers, only the tweets they themselves sent, so this is understandable.

The most severe issue for the companies are the financial losses caused by the crisis. The cost for VW will be perhaps 18 billion euros and for Samsung 10 billion euros. VW withdraw from the WRC class for the year 2017 and lay off 30000 people from its workforce. Perhaps the main positive result is that VW promised to develop electric cars and bring them to the market during the next 5-10 years. As far as we could observe, Samsung has not announced a radically new direction in its consumer product strategy.

In the future we would look more closely at the possible relationship of the communication style, and communication frequency of the companies at various social media platforms towards the stakeholders and the simultaneous financial performance of the companies over time. Perhaps there is positive or negative correlation. We could find a small percentage of tweets sent to Samsung where the customer wrote that he or she will not buy anymore Samsung phones or any products. The same is true for VW. Could this information be used to predict the future sales in some product categories? Another aspect is a more thorough sentiment analysis and the relationship between the social media user sentiment and financial performance of the company.

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