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Bachelor Thesis

Impact of a product recall

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Thesis title

Impact of a product recall

Objectives of thesis

This thesis aims to determine the significance of product recalls on companies, more specifically examine the impact on company's performance, reputation and brand perception. This can be achieved by an overview of company behavior during a recall crisis and the outcomes of such behavior. For this purpose, the research will focus on a General Motors recall case to investigate more specific objectives set as following:

1. Verify that product recall crisis impacted performance and reputation of the brand
2. Determine the impact on consumers' reaction to the recall

Methodology

This thesis contains two parts – the theoretical and practical parts. The theoretical part of the research is based on scientific literature review. The relevant literature mainly covers the topics of crisis management, more specifically product recall strategies, corporate reputation and consumer brand perception.

The practical part of the research is conducted from two aspects – the case study of General Motors recall with a focus on empirical findings and the survey of automobile industry consumers. An explorative study together with descriptive characteristics is used to illustrate the product recall situation and its outcomes.

A qualitative strategy is used for question formulation, purpose, and data collection.

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Keywords

Product recall, corporate reputation, brand, crisis, crisis management, consumer perception, customer loyalty

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- Cleeren K, van Heerde HJ, Dekimpe MG. (2013). "Rising from the Ashes: How Brands and Categories Can Overcome Product-Harm Crises." *Journal of Marketing* 77(2): 58-77. doi:10.1509/jm.10.0414
- Cheng, Y. (2016). Who is leading whom in the General Motors recall: Understanding media impacts on public relations efforts, public awareness, and financial markets. *Research Journal of the Institute for Public Relations*, 3(1), 1-25.
- Kotler P., (2016), *Marketing Management*, Harlow UK., Pearson Education, 832pp, ISBN-13: 978-9332557185
- Souiden, N., Pons, F. (2009), "Product recall crisis management: the impact on manufacturer's image, consumer loyalty and purchase intention". *Journal of Product & Brand Management*, Vol. 18 No. 2, 106-114. doi:10.1108/10610420910949004

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Declaration

I declare that I have worked on my bachelor thesis titled "Impact of a product recall" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the bachelor thesis, I declare that the thesis does not break any copyrights.

In Prague on 30.11.2021

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Impact of a product recall

Abstract

During the past decade, the number of product recalls have significantly increased, resulting in an increase in expenses for both the consumer and companies. Companies are faced not only with negative implications of their short-term performance (e.g., sales) but also with long-term marketing measures such as brand image, brand perception and attitude. All product harm crises involve financial costs for the company involved and can deteriorate company performance. However, different ways of responding to such crises exist and as a result, companies should know how to plan their recall communication to reduce negative impact. The purpose of this thesis regarding product recall is to study the impact on company performance and consumer response to the recall. On the General Motors recall case example this study aims to analyse the effects of crisis management for helping companies to successfully manage product harm crises.

Keywords: Product recall, corporate reputation, brand, crisis, crisis management, consumer perception, customer loyalty

Dopad stažení výrobku z oběhu

Abstrakt

Během poslední dekády se počet stažení produktů výrazně zvýšil, což má za následek zvýšení nákladů jak pro spotřebitele, tak pro společnosti. Společnosti se potýkají nejen s negativními důsledky své krátkodobé výkonnosti (např. prodeje), ale také s dlouhodobými marketingovými opatřeními, jako je image značky, její vnímání a postoj. Všechny krize způsobené poškozením produktu zahrnují finanční náklady pro zúčastněnou společnost a mohou zhoršit výkonnost společnosti. Existují však různé způsoby, jak na takové krize reagovat, a v důsledku toho by společnosti měly vědět, jak naplánovat krizovou komunikaci, aby snížily negativní dopad. Účelem této bakalářské práce týkající se stažení produktu je prostudovat dopad na výkonnost společnosti a reakci spotřebitelů na stažení. Tato studie si klade za cíl analyzovat dopady krizového řízení na pomoc společnostem úspěšně zvládat krize způsobené poškozením výrobků na příkladu případu General Motors.

Klíčová slova: Stažení produktu, firemní reputace, značka, krize, krizové řízení, vnímání spotřebitelů, loajalita zákazníků

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List of abbreviations

CEO Chief Executive Officer

GM General Motors

GMC General Motors Corporation

NHTSA National Highway Traffic Safety Administration

RAPEX Rapid Exchange of Information System

SCCT Situational Crisis Communication Theory

1 Introduction

The vehicles we make today are the best in memory and I'm confident that they will do fine, on their own merits. And our company's reputation won't be determined by the recall itself, but by how we address the problem going forward. What is important is taking great care of our customers and showing that it really is a new day at GM.

– Mary Barra CEO General Motors

The volume and frequency of product recalls has risen over the years. In addition to creating an intense concern for companies who have struggled to handle the risk-laden environment, most of these recalls have considerably affected consumers.

Product recall is an act of a product removal from the market to protect consumers from the protentional risks associated with their use. The most common explanation for a product recall is a lack of safety, which leads to a risk of injury. The whole product recall process creates a crisis situation for the company involved. Product recall is considered as one of the internal crises, which companies are tent to experience once in a while and sometimes such crises can be inevitable. Product-harm crisis occurs mainly from inappropriate quality controls in the manufacturing process. More product-harm crises are expected in the future as products get more sophisticated, laws becomes more stringent, and customers become more demanding (Dean, 2004). As a result, understanding the impact of product-harm crises has become a fascinating subject for academics and a major concern for many companies as they must decide how to deal with the crisis in order to avoid negative reputation (Chen et al., 2009).

One example is General Motors (GM) product-harm crisis of 2014, which was the result of the ignition switch defect, causing death of more than 100 people. GM had to initiate a major product recall, affecting 30 million cars. This study will investigate consumer reactions and impact on company performance using this case study. During a product-harm crisis, widespread negative publicity will overwhelm consumers and have a significant influence on customer perceptions of the brand, as well as the company's consumer satisfaction (Cleeren et al., 2008; Dawar & Pillutla, 2000). It is widely assumed that negative brand information has a detrimental impact on all areas of a brand, although this is not proven. Previous studies found that negative brand information had a negative influence on brand attitude and/or purchase intention (Dawar & Pillutla, 2000; Ullrich & Brunner, 2015). However, Ein-Gar et al., (2012) discovered that a small quantity of negative information boosted customers' perceptions of a brand if they had previously heard favourable comments

on that brand. One of our purposes in this study is to explore the role of consumer attribution, who were influenced by the negative information produced by the recall in order to improve this knowledge.

Previous empirical studies suggest that a product recall has a significant influence on a company's short-term performance and marketing activities. According to Mowen et al., (1981), companies who are forced to recall their products suffer significant sales losses. Such sales losses have a significant influence on the impacted company's financial and stock market performance (Chen et al., 2009). However, Wynne & Hoffer (1976) disagree that recalls have any effect on sales volumes of recalled automobiles. On the other hand, (Weinberger et al., 1981), who evaluated different brands of automobiles under certain recall situations, argue that automotive recalls have an impact on sales and manufacturer market share. With such a diverse viewpoint, it could be beneficial to study the impact on the company's short-term performance on the example of this case study.

2 Objectives and Methodology

2.1 Objectives

This thesis aims to determine the significance of product recalls on companies, more specifically examine the impact on company's performance, reputation, and brand perception. This can be achieved by an overview of company behaviour during a recall crisis and the outcomes of such behaviour. For this purpose, the research will focus on a General Motors recall case to investigate more specific objectives set as following:

1. Verify that product recall crisis impacted performance and reputation of the brand
2. Determine the impact on consumers' reaction to the recall

The findings of this research should also contribute to a better understanding on the effective ways of product recall responds and crisis communication. It can also have practical implications for companies in the automobile industry and other sectors.

2.2 Methodology

This study contains two parts – the theoretical and practical parts. The theoretical part of the research is based on scientific literature review. The relevant literature mainly covers the topics of crisis management, more specifically product recall strategies, corporate reputation, and consumer brand perception.

In accordance with the purpose of the study and previously mentioned questions, the practical part of the research is conducted from two aspects - the case study of General Motors recall with a focus on empirical findings and the survey of automobile industry consumers. An explorative study together with descriptive characteristics is used to illustrate the product recall situation and its outcomes with help of the following research questions:

1. How did General Motors handle the crisis?
2. What are the post-recall changes in company's performance?
3. What is consumers' reaction?

A qualitative strategy is used for question formulation, purpose, and data collection.

3 Literature Review

3.1 Product recall

During its life cycle, any brand can face a crisis that can arise unexpectedly and can generate negative advertising for the brand and many companies still don't know how to handle the situation (Rubel et al., 2011). One of such crises is product recall, which can be described as “an action that removes defective products from sale, consumption or operation due to possible safety risk of particular products” (Ahsan & Gunawan, 2014). Product recalls are generally related to safety issues, and the reasons for the recall are primarily due to new scientific information about the risks that may arise from manufacturing defects, improper design defects, instructions and warnings, product or material specific, accidental contamination and other problems that lead to failure to perform the intended purpose for a given interval under the specified conditions (Berman, 1999).

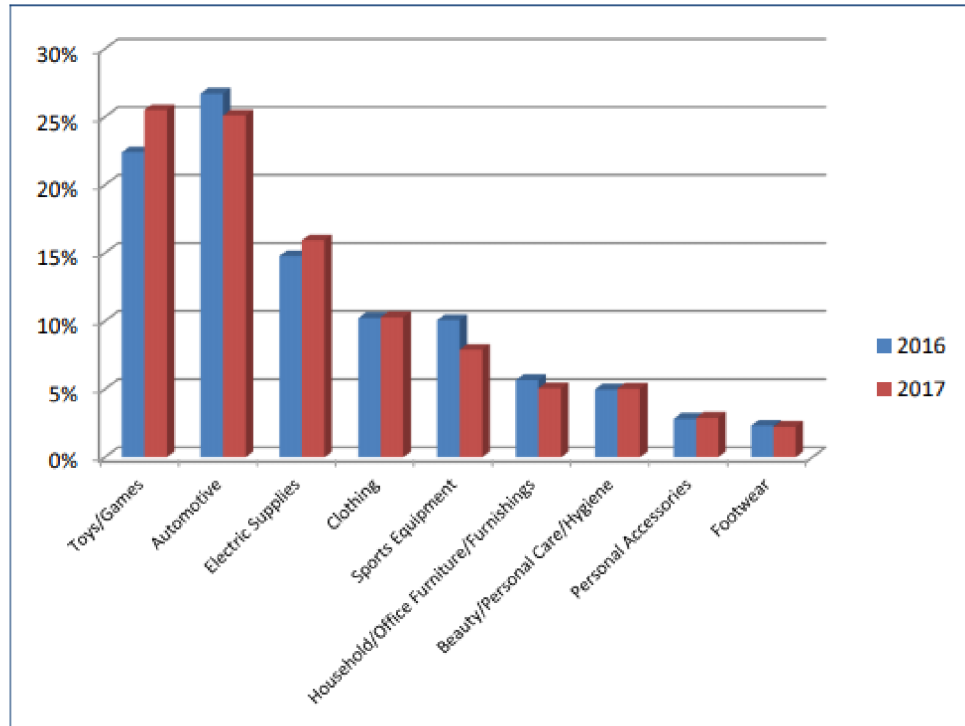
Manufacturers, retailers or authorities, governments or private organizations initiate recalls to capture the attention of existing consumers of their products for safety reasons (Ahsan & Gunawan, 2014). The recall process typically includes a formal announcement explaining the reasons for recall and the solutions provided to the customer (Hora et al., 2011). In case if many customers experience product-related problems, they report it local seller, supplier or manufacturer. The manufacturer (or occasionally the state authority) investigates the case, makes a decision to recall product and alerts the respective consumers and stakeholders (Ahsan & Gunawan, 2014).

Moreover, the recalls can occur to both new and ingrained products and may have significant consequences. It is widely believed that product recalls can cause irreparable damage to the brands, decrease profits and destroy company reputations. It was discovered that a significant number of companies face litigation due to product failures that have a serious impact on the credibility of the company's reputation and affects its publicity (Quanhong & Xin, 2015). Therefore, manufacturers must undergo full testing before listing their products, fix defects, set up a complete legal service system, and resolve recall litigation issues.

Most of the research on the recall involves products such as toys, cars, and food. The main sectors struggling with recalls are food, automotive, pharmaceutical, medical equipment, household appliances and vehicles (Marucheck et al., 2011). As shown in Figure 1, the two industries which seem to have prompted the largest number of recalls on the OECD GlobalRecalls portal in the years 2016-2017 are automobiles and toys, followed by electrical

equipment and clothes. In 2016, automobiles were the most recalled product category (26%), followed by toys (23%), as well as electric supplies (14%).

Figure 1: Recall notifications per product category (2016-17)



Source: OECD GlobalRecalls portal

Data from certain countries also reveal more and more vehicles in 2016 were recalled from various countries. The same was true in the United States, according to the US National Highway Traffic Safety Administration (NHTSA) 53.2 million vehicles were recalled. This is more than three times that of 2012 (16.5 million). This trend has been reflected across Europe, and private sector data show that total vehicle recalls increased by 76% compared to the previous year in 2016, the highest since the European Union's RAPEX launch (AGCS, 2017).

One of the examples of such statistics is the infamous Takata Airbag inflator recall. Automobiles produced by nineteen different vehicle manufacturers were recalled to replace potentially harmful driver or passenger seat front airbags, which Highway Traffic Safety Administration (NHTSA) called “the most complex consumer safety recall in U.S. History” (Rosekind, 2015).

The airbags are manufactured by Takata Corporation, a Japan-based vehicle safety parts company that provides airbags to major automotive manufacturers worldwide. The airbags,

installed in cars from 2000 through 2015 (Blomquist, 2015), have an inflator, a metal cartridge loaded with ammonium-nitrate-based propellant that is believed to be the cause of the defect (NHTSA). The propellant degrades over time, when it is exposed to moisture or high temperature fluctuations, which can lead to a too fast burning of the propellant, causing the overpressure and rupture of the inflator during airbag deployment (Blomquist, 2015). A rupture of the inflator may cause sharp metal fragments to push out outward, which in extreme cases could lead to injury or death of the passengers (ibid.). By January 2017, defective Takata airbag inflator resulted in 11 deaths and approximately 180 injuries and the recall included 63 million airbags from more than 42 million vehicles in the U.S (Atiyeh & Blackwell, 2017).

3.2 Recall strategies

The company's response to product recalls varies. Chen et al., (2009) suggested two kinds of product recall strategies – proactive and passive recall. According to their study concerning product recall strategy, when a company implements a passive recall strategy, it means that there is no motivation to respond at all. A passive response means postponing the recall process or transferring the responsibility to other members of the supply chain, such as manufacturers, distributors and/or retailers (Bernon et al., 2018). The recall process may be delayed as the company denies or attempts to remove responsibility for defective products. Instead, this action is initiated by the government authority forcing the company to issue the recall (Chen et al., 2009). After reports of incidents, or investigations by control agencies, a passive strategy is mostly used. Companies are particularly interested in passive responses when discovering serious and widespread product defects that cannot all be repaired or replaced. As a result, companies that use passive recall strategies tend to announce recalls much later than proactive companies, often after major complaints, harm, or consumer death.

In comparison, an organisation which adopts a proactive strategy are ready to take responsibility and communicate about their incidents clearly and openly. A proactive strategy emerges before an actual incident, when a company discovers a potentially harmful product as a result of an internal quality evaluation (Chen et al., 2009). Margolis et al., (2009) suggest that a proactive approach increases consumer confidence in companies' products and contributes to a quicker recovery for companies. Siegel and Vitaliano, (2007) argue that consumers and investors perceive a proactive approach as a sign of corporate responsibility,

even if the incident reduces cash flows that could disrupt the company. Chen et al., (2009), on the other hand, found the impact of proactive recall strategies on the financial value of a company to be more negative than passive. Although existing literature is contradictory, most studies suggest that the proactive approach is less restrictive.

In the Siomkos and Kurzbard, (1994) work corporate reactions to product recalls are categorized into four types: denial, forced recall (involuntary), voluntary recall, and 'super-effort'. In general, denial and involuntary recall are included in passive responses category, while voluntary recall and super-effort are considered as proactive responses. A denial is simply ignoring any blame for the faulty product or failing to respond at all. An involuntary recall occurs when a government or other agency requires a company to behave in accordance with laws and regulations. The main difference between voluntary and involuntary recalls is timing, because the voluntary recall is initiated before any other organization's interference (Siomkos & Kurzbard, 1994). Voluntary recalls are issued prior to any safety issues or complaints from customers. For example, Apple voluntarily recalled millions of its two-prong AC wall plugs in 2016 after discovering their ability to crack and induce an electric shock (BBC news, 2016). The super-effort recall strategy allows a company to behave transparent and responsible and demonstrate concern for the customers. Consumers are kept as comfortable as possible after a recall through clear advertisement, complimentary samples, and the availability of discount coupons (Shrivastava & Siomkos, 1989; Siomkos & Kurzbard, 1994).

Coombs, (2007) has defined a structure of response strategies inspired by SCCT focused on the company's presumed acceptance of blame for the crisis. According to stakeholders, companies are more concerned about their victims and take more responsibility for crises as they become more adaptable (W. T. Coombs & Holladay, 2002). As a result, Coombs, (2007) suggested three main reputation repairing strategies: "denial; diminish; and rebuild". Organizations who use a denial tactic attempt to separate the crisis from the company. The fundamental belief is that if no one is held responsible for the crisis, the company will not be affected. A diminishing strategy involves framing the situation in such a manner that customers assume the problem is not as serious as it seems or that the company has no influence over it at all (T. W. Coombs, 2007). This strategy should result in less blame attribution. A rebuilding strategy may be considered as proactive and includes reimbursement and official apology. Finally, bolstering is a complementary technique that can be used in coordination with the other three. Bolstering reflects on the past which may

include thanking partners or sharing stories about the organization's recent positive work (W. T. Coombs, 2007).

Table 1 provides a summary of all previous different product-harm crises response classifications:

Table 1: Summary of different recall strategies classifications

Authors	Framework
Siomkos & Kurzbard (1994)	<p><i>Company response continuum</i></p> <ul style="list-style-type: none"> • Denial • Involuntary response • Voluntary response • Super-effort
Dawar & Pilutla (2000)	<p><i>Stonewalling versus support</i></p> <ul style="list-style-type: none"> • Unambiguous stonewalling • Ambiguous support • Unambiguous support
Coombs (2007)	<p><i>SCCT Crisis-response strategies</i></p> <ul style="list-style-type: none"> • Denial • Diminish • Rebuild • Bolstering

3.3 Crisis management

The idea of crisis management includes predicting and minimizing the negative effects of a crisis that may endanger an organization or an individual's life. Effective crisis management, according to Pearson & Clair, (1998) requires minimizing these threats prior to the beginning of a crisis by engaging cooperation between major stakeholders that are having a common idea of the concept of crisis, its effects, and the management strategies, roles, and responsibilities that must be taken. Similarly, Hough & Spillan, (2005) and Smits & Ally, (2003) suggest that in order to achieve efficiency in crisis management, an organization must be able to recognize the type of crisis and the amount of involvement required to prevent expenditures.

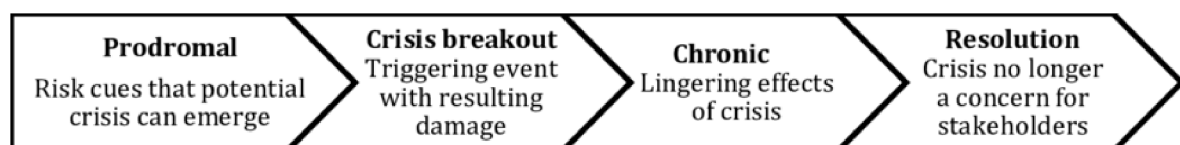
Alternatively, a successful management plan, according to Boin, (2004), is one in which managers prepare their companies for a crisis by taking preventative actions and establishing mechanisms of personnel stability. Resilience is defined as “the ability to cope with unexpected threats once they have emerged and to learn to recover”(Boin, 2004). From the beginning, the resilience strategy should be integrated in the company culture and nurtured.

Boin, (2004) criticizes the idea that too much attention is focused on the prevention of "regular crises" - those that occur frequently, and organizations are prepared to deal with them. However, the underlying signs of crisis, such as the speed with which they occur and their severity, are frequently unanticipated. As a result, companies must concentrate on growing resilience, which requires building an internal ability to deal with previously unseen and unpredicted kinds of crisis.

The risk of a crisis is increasing as the world is becoming more technologically and environmentally demanding. While it is difficult to imagine and prepare for the unknown, the organizations' survival depends on adaptive crisis planning and reaction. As a result, crisis managers must learn to find a balance between planning and preventative efforts and the building of organizational resilience, which can be difficult.

Many approaches for dealing with different kinds of crises have been developed in the subject of crisis management. These models may include substages or subsequent stages. One of the models is offered by Fink & Association, (1986), which includes four-stages of a crisis life-cycle (see Figure 2). When crisis managers are planning a strategy, understanding the stages of a crisis is critical since each stage of a crisis demands a distinct variety of responses. Company managers and authorities must seek out and recognize any indicators of crisis early in the prodromal stage. The acute stage is a visible indicator that produces harm, and its outcomes are determined by the efficiency of the first stage. The chronic stage is related to the long-term consequences of a crisis that require quick response. Strategies and approaches for resolving the crisis are developed at this stage. The final resolution stage is where actions are undertaken to terminate the crisis.

Figure 2: Fink's crisis life-cycle model



Source: Fink & Association, (1986)

3.4 Corporate Branding and reputation

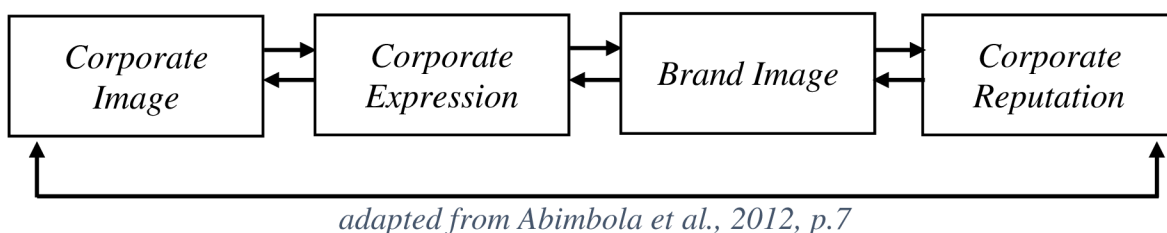
Organisations are gradually realizing the value of brand reputation to meet market goals and remain successful. Social trust in business is low, and public control over the business is high. The spread of media over the last two decades, the demands of investors for greater

transparency, and the increased attention paid to social responsibility call for a stronger focus on the part of organisations to create and maintain the positive reputations.

One of the primary factors that hold company's reputation is *corporate brand*, defined as a combination of name, symbols and promises that identify a company (Argenti & Druckenmiller, 2004). Gray and Balmer, (1998) characterized *corporate reputation* as combination of stakeholders' and consumers' perceptions about the company and stated that there is connection to the feelings that consumers have about the brand. Specifically, a significant drop in the perceptions of corporate reputation of consumers may lead to a decline in consumer confidence in the brand (Rhee & Valdez, 2009).

In order to understand how corporate reputation is related to brand it is necessary to discuss, firstly, the relationship between corporate identity and brand image and after the relationship between brand image and corporate reputation (Rialti et al., 2016). According to Podnar and Balmer, (2013), *corporate identity* is based on mission, vision, principles and basic strategic decisions. Despite corporate identity is closely connected to the inner core values of corporations, while brand and corporate reputation are linked to the perceptions of stakeholders (Argenti & Druckenmiller, 2004), the components of corporate identity directly influences the "*corporate expression*", which in turn influences *brand image* (Abimbola et al., 2012). This relationship is shown on Figure 3:

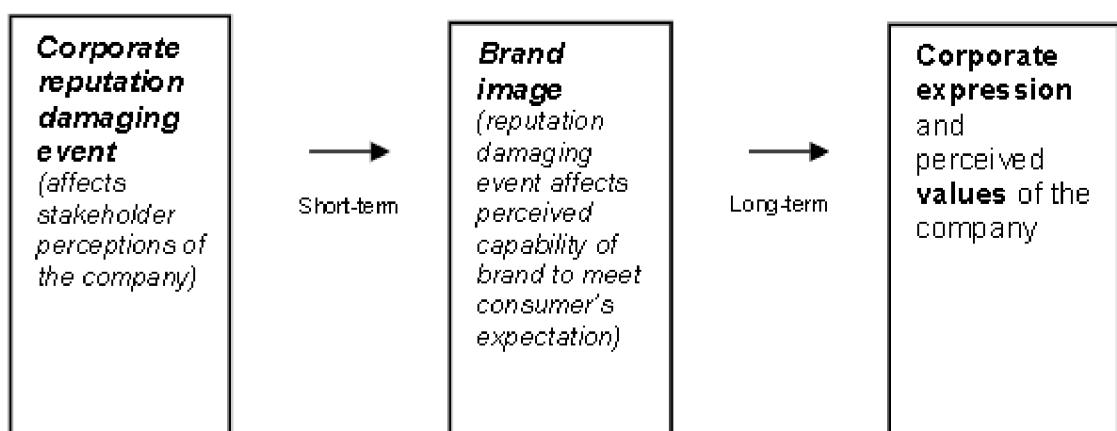
Figure 3 Corporate identity, brand and corporate reputation



Therefore, corporate expression and brand image make up the brand, that consumers and stakeholders have a perception of. In fact, *corporate expression* is an element of the brand that is specifically retrieved from strategic corporate identity decisions (Podnar & Balmer, 2013). However, *brand image* is an element of a brand that is influenced by expectations of brand communities and stakeholder interactions relevant to corporate brand (Argenti & Druckenmiller, 2004). Thus, we determined that the corporate brand and corporate identity

are closely connected. It means that the brand image may reflect changes in corporate identity, while changes in the image of the brand could hurt perceived corporate expression. Since the interrelation of corporate identity and brand was discovered, a relationship between brand and corporate reputation can be identified (Rialti et al., 2016). As Podnar and Balmer, (2013) described, reputation is a combination of all stakeholder impressions of a company, therefore brand perceptions form a large part of the contents of corporate reputation. Based on this conclusion, it can be stated that events that damage reputation may provoke harming the brand and causing brand value attenuation. As a result, such incidents may disrupt stakeholder perceptions of how company goods and services will fulfil their needs (W. T. Coombs, 1998). Besides that, the worst outcome could be that the capacity of brands to attract customers may be diminished (Salvador & Ikeda, 2018). Concerning this interrelation, companies should apply certain strategies to maintain brand image and corporate reputation, while preventing harm to corporate identity and dissociation between corporate values and brand, as seen in Figure 4 (Rialti et al., 2016):

Figure 4: The effect of reputation harming events on brand and corporate identity



Source: Rialti et al., 2016

3.5 The significance of prior brand reputation

According to studies, a company's prior brand image and reputation can save it from the negative impacts of crises. (Dawar & Lei, 2009; Dawar & Pillutla, 2000). When approached with negative news, consumers differently evaluate elements of information related to the crisis based on their previous expectations (Dawar & Pillutla, 2000). According to Dawar & Lei, (2009), when a crisis happens, consumers perceive known brands to be less responsible for crises, reducing the impact of crisis information. As a result, consumers' favourable prior

brand perceptions provide a hypothesis-supporting environment in which they perceive crisis information, resulting in a reduced negative impact on brand evaluations (Dawar & Pillutla, 2000). Moreover, companies may consider consumers' existing favourable perceptions as an insurance against the potentially severe impact of a crisis (ibid).

Dawar & Lei, (2009) believe that the perceived severity of a crisis and its influence on brand perceptions are a factor of the crisis' relation to the brand's core advantage associations. Consumers can judge how significantly a crisis harms a brand based on how relevant the crisis is to the core associations, which are a primary reason for consumers' choice of a given brand over others in the industry, therefore less harm to the brand image occurs if the relevance of crisis to the core associations and the perceived crisis significance is low (ibid). Moreover, according to W. T. Coombs & Holladay, (2006) a good prior reputation might serve as a halo effect, protecting a reputation of the company during a crisis in two ways. First is halo as advantage of the doubt, which implies that if a customer has a generally positive impression of the brand, the customer may assign the organization less crisis responsibility, resulting in lower reputational harm as a result of the crisis. Second, as part of the broader psychological phenomena of expectation validation, the halo as shield emphasizes that consumers will focus on the favourable features of the company and disregard the initial negative information resulted out of crisis. In this sense, a positive prior reputation as perceived by customers acts as a halo effect, potentially reducing the company's assigned crisis responsibility and minimizing the crisis' damage to the brand (W. T. Coombs & Holladay, 2006). As a result, the stronger and more favourable the brand's image and reputation, the more resistant it may be against possible reputational damage.

3.6 Impact of product recall

3.6.1 Impact of product recall on Brand Image

As stated by Eilert, (2013) the companies invested a considerable amount of time and money developing positive brand images and reputations. In the case of a product recall, brands are the ones that suffer the most. First, a negative impact on the brand is understood as a recall is caused by a degree of harm found in products. When a company produces a wide range of goods, the recall of one type of product has a broad effect on the company's name (Eilert, 2013). Consequently, the emphasis will be on preserving the brand reputation after management has decided to communicate on the product recall. This is because a brand image is related to a variety of other aspects, such as market share, brand value, and

competitive advantage. Recently, the press and consumers linked the brand with defective products after General Motors corporation recalled some of its vehicles in the United States (Mak et al., 2020). As a result, the company's reputation was damaged. In addition, the speed at which a product is recalled is critical in assessing brand image impact. In companies with strong brand equity compared to their competitors, speed is critical as the longer is the recall period, the more negatively impacted the reputation of the brand would be (Mak et al., 2020). In addition, a slow process causes distribution of harmful and inaccurate information and affects a company's consumer perceptions. Consequently, companies should tend to be responsive and proactive in addressing the crisis. However, Quanhong and Xin, (2015) claim that when high-equity brand products are involved, companies should postpone the process because the consequences are difficult to manage. Moreover, in the case of a product recall, strong brands appear to resist negative publicity, minimizing the resulting consequences. The timing and method used for communication often affect the impact on a brand of a product recall. When timely information is given to consumers by the use of public communication networks, it demonstrates that an organization complies with existing requirements that govern product safety (Kübler & Albers, 2012). In addition, the brand's importance in affecting the company's revenues determines the reputation a company can earn. If the recall is made on a product that has little impact on the brand, there are few or minimal consequences as opposed to when the product has a higher impact (Mak et al., 2020). A product recall allows a competitor to take advantage of the affected company's flaws, negatively impacting its brand image. Competitors, according to Eilert, (2013), are opportunistic and take advantage of a recall situation to obtain brand benefit. Eventually, the affected organization could gain a negative reputation and lose its competitive advantage. A recall situation may, though, be a chance to further improve a company's brand reputation (Mak et al., 2020). It depends on the decisions taken with regard to communication and the extent of transparency to be enforced (Kübler & Albers, 2012). Besides that, the brand is favourably influenced by making consumers feel respected and remain a focus for the company.

3.6.2 Impact of product recall on Corporate Performance

The decision to recall a product has a significant role in the management of the company and has a major impact on its performances. The product recall in some degree from top

management solutions to company leaders is almost tied to organizational survival (Quanhong & Xin, 2015).

Quanhong and Xin, (2015) discovered that the impact on corporate performance can be either positive or negative. The negative impact includes such outcomes as:

Major financial losses - defective products have large quantities, flow, geographic distribution and combined with a variety of complex conditions such as defective product recall, storage, maintenance, restructuring, etc., which involves enormous material capital, human resources, financial resources, corporate resources, etc. to be expended, and less customer demand leads to the significant financial losses.

Impact on brand image and company reputation - brand recall in the eyes of the majority of consumers would give the impression that companies have issues with quality control, dishonesty and bad faith, which will produce poor quality signals. Consumers will question the reliability of product quality, which reduces brand loyalty. The negative reputation of sharing and measurement of customer experience when buying a defective product can undermine a company's reputation, which can do great harm to the company.

Reduced corporate market share - in the event of a corporate product crisis, competitors use a variety of methods, including discounts, product distribution, product innovation, service improvement, promotion, and other ways to enter the company's target market. Competition for product consumers eventually weakens the organization's existing market share.

Reduced investor confidence and market capitalization – in a situation when reclamations and claims are proceeding, demand is dramatically decreased, the market share will be reduced and reputation will be damaged, investor trust will be affected, and the reasonable decision is to decrease company stocks. The greater variety of defective product recall would induce a significant drop in the corporate stock and the company's share cap will decrease, which in turn will further negatively impact the product market, thereby causing the company's survival crisis.

According to the Quanhong and Xin, (2015) product recall requirements based on creating a crisis-promoting program, including appropriate promotional activities, posting accurate and fast product recall information, verifying the full story, eliminating public suspicion, reducing consumer losses, and guiding media awareness to news that favors companies. Through sophisticated after-sales actions and reward mechanisms, the short-term and limited negative impacts of defective product recalls can be turned into specific positive effects:

Build a good corporate image – by initiating a product recall the company aims to reduce pollution and environmental damage, eliminate potential threats to consumer health and safety, avoid major industrial accidents, show responsibility and confidence, pay attention to safety and other good impressions to the society increase its visibility and reputation. In addition, the product crisis will lead to widespread media attention and concern and, if handled appropriately, will increase corporate visibility.

Strengthen the system of quality control - a good return channel and recall system can help businesses analyse product return rate distribution, consumer demand and preferences. This will improve consumer satisfaction, improve the corporate quality control system, and strengthen product market competitiveness.

Improve communication with consumers - consumers can't determine the design flaw and malfunction of the product correctly due to significant information inconsistency. In this situation, a caring organization with polite attitude towards product recall may increase its retail revenue or customer service. Customers are free to return products that do not meet their requirements. This will relieve the anxiety of customers purchasing corporate products, increase customer satisfaction, gain customer understanding and trust, increase the company's competitive advantage and strengthen its position in the corporate market.

4 Practical Part

4.1 Data collection and analysis

The data collection includes analysis of primary and secondary sources. For the analysis purposes qualitative data on case background as secondary source and consumers' perceptions and opinions as a primary source were used.

Consumers' reflections on the recall were assessed using a survey designed for automobile industry consumers. The survey was distributed in the social media, particularly in the car related Facebook groups and groups where product recall announcements are announced and discussed. First Part of the survey gathered data of the consumers' demographics and their involvement in the automotive industry. Total of 165 respondents took part in the survey including 5 respondents who stated that they do not have a car, therefore they were not considered as industry consumers and were not included in the further study. Table 2 shows the demographic breakdowns of the respondents.

Demographic aspect		Percent
Gender	Male	58,8
	Female	39,4
	Prefer not to say	1,8
Age group	18-20	2,3
	21-29	24,6
	30-39	36,6
	40-49	26,9
	50-59	8
	60 or older	1,6
Region	Europe	19,4
	Asia	12,6
	North America	38,3
	South America	25,7
	Africa	4
Occupation	Student	11,4
	Employed for wages	56
	Self-employed	20
	Retired	8,6
	Unemployed	4

Table 2: Demographic breakdown of respondents

Second part of the survey included questions related to the consumer perceptions and opinions. These questions were assessed using 5-point Likert Scale, where “1” is the lowest value and “5” is the highest. The data obtained from this part were further used in analysing the impact on brand perception, described by negative sentiment, consumer brand attitude and purchase intentions; impact on company performance, which includes such attributes as financial performance, reputation, and corporate image. In this case financial performance of the company was described by share price and trade volume, reputation was described by perception of product quality, brand loyalty and trust, and finally corporate image was described by satisfaction with recall crisis management and company and its products.

4.2 General Motors case overview

General Motors Corporation (GMC), the world's biggest vehicle manufacturer, was founded in 1908. It designs, manufactures, and sells automobiles and trucks all over the world. GMC's worldwide headquarters are located in Detroit, USA, at the GMC Renaissance Centre. The corporation is an American icon with a long history of invention and has been a household brand for nearly a century. It has production processes in 32 countries and sells vehicles in 200 countries. GMC's primary markets include North America, Latin America, Europe, Africa, Asia Pacific, and the Middle East. Its greatest market is North America, where it has been the market leader for the past 78 years. Cadillac, Chevrolet, Buick, GMC, Hummer, Opel, Pontiac, and Saturn are some of the brands under which GMC vehicles are sold.

GMC's strategy is to be the global leader in transportation products by introducing innovative vehicles and the most attractive range in the company's history. The company will gain the loyalty of its customers by continuous improvement based on honesty, teamwork, and creativity of GMC employees. GMC achieved deals records within the industry for all trucks and sport utility vehicles in the United States for the fourth year in a row in 2004. In the same year General Motors sold over nine million vehicles and trucks worldwide, representing a four-percent increase over the previous year and the company's second-highest total ever.

In the late 1990s, General Motors began work on a redesigned ignition switch. GM gave its manufacturer requirements for the torque required to turn the key in the ignition. Early testing revealed that the switch terribly failed, therefore it was redesigned. GM authorized the redesigned switch despite its failing to fulfil GM's criteria, and as a result in 2002 GM started manufacturing vehicles with faulty ignition switches. Engineers at GM knew about the switch flaws back in 2002, yet nothing was done to fix them. Drivers might unintentionally change the ignition switch from "run" to "accessory" as a result of the defect. This caused car stalling while driving, loss of vehicle power, and the failure to deploy airbags in the case of accident, and the driver's power steering and brakes became uncontrolled as a result of this. Customers of General Motors started having issues with unexpected stalls and engine shut offs in 2004. GM concluded that the issue did not represent a safety risk and decided not to make any repairs. They rejected a key head modification that would have considerably decreased the chance of a sudden shut-off which would cost less than a dollar per vehicle.

GM informed its dealers of the problem only in February 2005. They instructed dealers to warn clients about the risk of a shifting stall and recommended them to "remove unnecessary things from their key chain." (Valukas, 2014). The Current Production Improvement Team, on the other hand, came to the conclusion that there was "no solid business case" for solving the ignition switch issue. GM engineer authorized an ignition switch modification in 2006 that increased the torque required to turn the key. However, he didn't assign the changed switch a unique component number, and he didn't inform others of the modification.

In 2011, GM in-house attorneys requested GM engineers that the GM Product Inquiry team investigate as a result of the high volume of complaints. The inquiry took a long time to complete, and the main inspector repeatedly ignored reports. By Spring 2012, it was evident to GM employees that the ignition switch issue was a safety concern since it may prevent the airbag from deploying in the event of a crash. GM investigators didn't find out until April 2013 that the ignition switch design had been modified in 2006. However, GM informed the NHTSA and the public about the accidents only in February 2014 and an initial recall of 700,000 automobiles was initiated. GM confessed that the faulty switch issue was not handled properly; instead, attempts were taken to postpone the recall until the problem could be packaged and explained. During this period, GM told the NHTSA that it was responding quickly and in compliance with its established recall procedure. Furthermore, GM emphasized the dependability and safety of their vehicles to the general public during this time period. Despite the fact that it did not sell any new vehicles at this period, it did sell pre-owned cars with certificates stating that all components fulfilled safety criteria. According to some reports, the faulty ignition switch caused more than 100 deaths (McGrath, 2014). After all GM recalled a total of 40 million vehicles and established a compensation fund offering more than \$1 million per victim.

4.3 Recall crisis overview and analysis of crisis management

Beginning in February 2014, GM's crisis was triggered by the recall of millions of vehicles with faulty ignition switches. GM's early recall connected this flaw to thirteen deaths (Porchetta, 2015). When the situation became public, an independent internal inquiry led by Attorney Anton Valukas was launched, which included federal legislative hearings (ibid.). Over the next few months, the issue began to deteriorate, with millions of recalls attributing over fifty deaths to faulty ignition switches (Shepardson, 2015). The investigation proved that GM was aware of the faulty ignition switches for more than 10 years and delayed

reporting the problem that caused these deaths and many more injuries (Krisher, 2014). They were given a fine, a criminal investigation, and multiple lawsuits after ultimately admitting knowing about the fatal defects for almost 10 years (Rogers, 2014).

Using Fink's four-stage model to describe and evaluate this crisis, the acute stage started in February 2014, with the recall of 2.6 million vehicles related to defective ignition switches. After admitting fault and related thirteen deaths, the recently appointed CEO Mary Barra took over as crisis manager, apologized to the victims and customers with honesty and sincerity. She ordered reforms and an internal inquiry, which discovered that the company had been aware of the issues for over 10 years but preferred not to issue a recall due to expenditures (Basu, 2014). This revealed GM's corporate culture of negligence and indifference, including the concealment of safety hazards (Rushe, 2014). Between 2001 and 2005, they had multiple opportunities to address this issue at the pre-crisis phase, based on internal conversations and consumer concerns (ibid). They might have altered course as a result of individual cases resolved out of court based on deaths attributable to the flaw prior to 2013. After admitting awareness of the flaw, GM was penalized \$35 million by authorities (Rogers, 2014). More recalls emerged in the months that followed, totalling around thirty million cars for different faults, with an increasing number of fatalities directly tied to defective switches. From the CEO's effectiveness and recurrence of a robust reaction with image restoration techniques of apology, remedial measures, and compensating accommodations, the problem reached the chronic stage before the end of 2014 (Sellnow & Seeger, 2021).

When evaluating GM's crisis response to the recall crisis, company initially adopted the denial strategy as indicated by ignoring all signals of a rising problem. Prior to the recall, they had a strong reputation after emerging from bankruptcy as a financially solid corporation with a fresh image and shareholder confidence. This increased trust was bolstered by the company's re-entry into the public market, which resulted in increased sales and revenues (Bigman, 2013). They experienced recalls or low-quality problems in the past, including the 2009 bankruptcy crisis (Bigman, 2013). Any injury or death caused by a company's purposeful or inadvertent actions requires an immediate strong crisis reaction, including a complete apology, full accountability, and remedial steps with accommodations, regardless of reputation or past crisis experience (W. T. Coombs & Holladay, 2006). To rebuild their image and manage this issue, GM adopted the same reaction approaches of rapid response, full accountability, and corrective action with accommodations.

By the acute stage of the crisis, GM CEO Mary Barra used a proactive strategy, which has shown to be more effective in generating a favourable media coverage than a reactive approach (Holtzhausen & Roberts, 2009). She followed best practices in terms of transparency and honesty, and she collaborated with the media as well as other stakeholders such as workers and distributors (Seeger, 2006). Barra straightly reached out to the media, bringing them to the corporate headquarters and spoke directly to them about the initial recall (Townsend, 2014). The CEO confronted the crisis by publicly accepting guilt and responsibility, apologizing with empathy, and immediately reaching out to consumers and victims (Burns, 2014). To send out recall notifications, GM not only began employing a contact centre of fifty employees, but also using blogs, letters to owners and media (ibid). People were warned to put away unnecessary things from their key rings until the switches were changed, since this may cause the engine to shut down (Krisher, 2014). They provided their franchised dealer with resources to assist with recalls and customer service, including free rental vehicles. Barra's message clearly emphasized the need of customer safety. During a congressional hearing, she personally contacted with victim families and apologized to them again. Barra also started an independent inquiry, which eventually revealed more recalls of up to thirty million vehicles, including more deaths related to the ignition fault. Barra took a stronger position by terminating fifteen workers and penalizing others directly implicated in the mismanagement of the situation (Bloomberg, 2014). She also promised more transparency as part of a culture shift toward responsibility (Jusko, 2014). Barra also established a compensation program for victims and their families, which was supervised by Kenneth Feinberg, who previously coordinated funding for victims of the terrorist acts of September 11th and the 2010 BP oil spill (Bloomberg, 2014).

4.4 Consumer's reflection

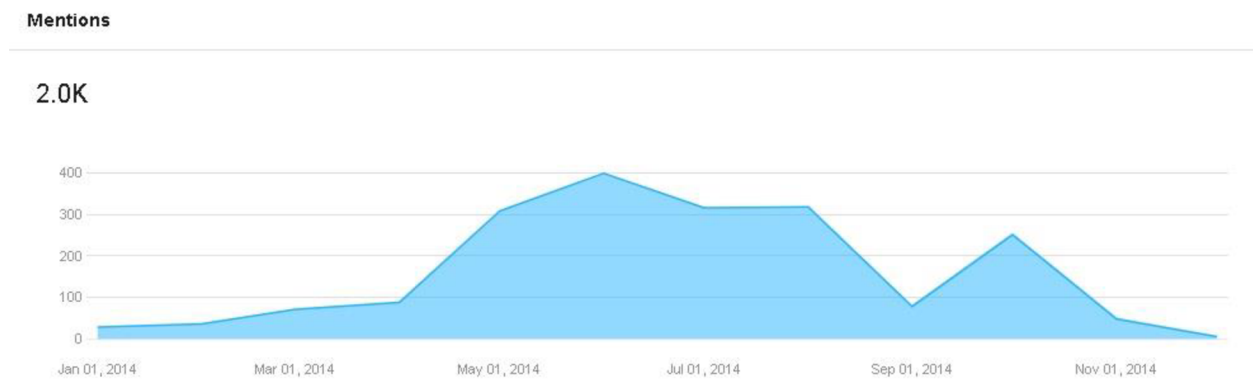
4.4.1 Recall awareness

According to information processing theory, brand attitude and choice are heavily influenced by exposure frequency (Baker, 1999). Furthermore, information accessibility is more important and influential in decision making than the quality or source of the information (O'Reilly III, 1982). According to Duan et al., (2008), while ratings have little effect on movie sales, the amount of online posts has a considerable impact. These findings imply that the awareness impact created by online mentions has a greater influence on consumers than the persuasive effect of online mentions. However, given the implicit premise that product

recall crises are negative information, customers who are exposed to a high volume of product recall information may negatively change their opinions and judgments about the company. When there is a high volume of discussions regarding a product recall, the recall crisis receives more attention and possibly condemnation from the public, which can increase the negative impact of product recall. Considering these findings, online mentions and public interest data of GM ignition switch recall was gathered and analysed to determine the recall public awareness.

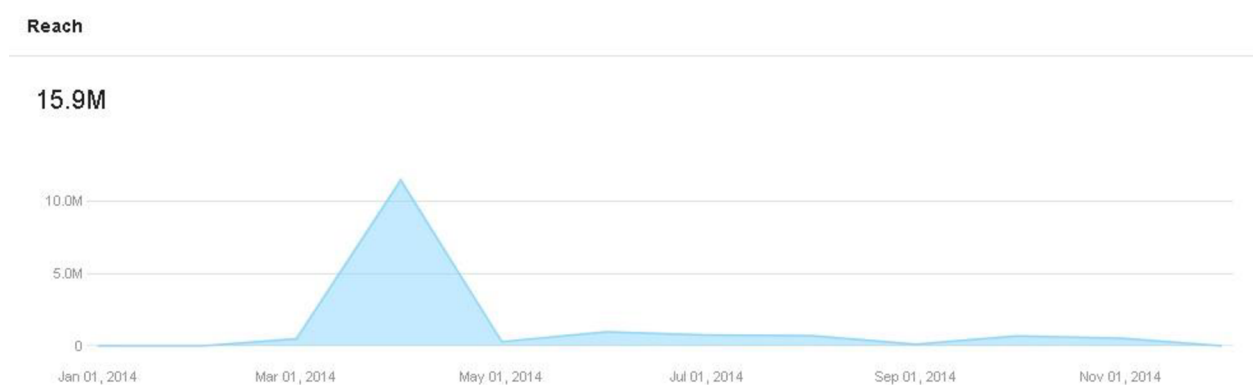
The online mentions data were gathered using Awario, a social listening and brand monitoring tool. The analysis was based on data collected from January through December of 2014.

Figure 5: Online mentions of the GM recall



Source: Awario Brand Monitoring

Figure 6: The statistics of reach of the GM recall mentions

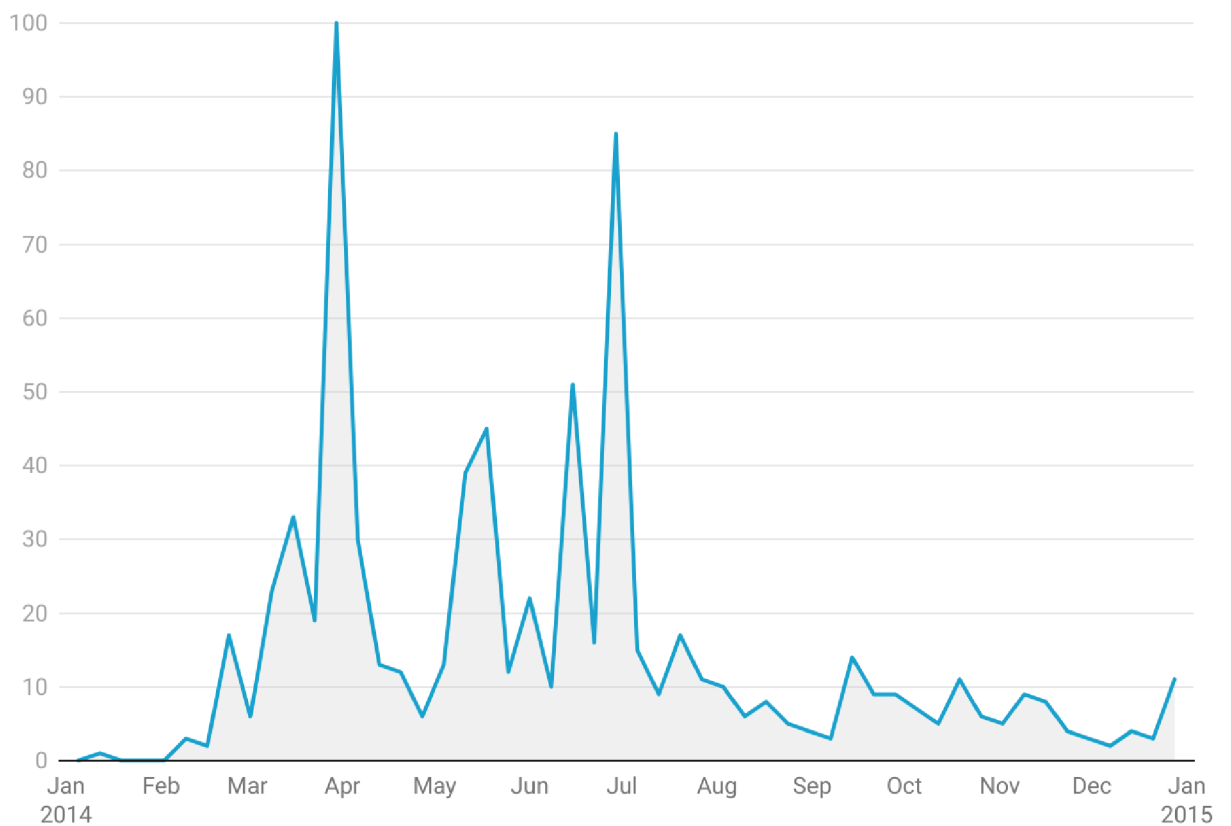


Source: Awario Brand Monitoring

According to these data, the recall's extensive media coverage appeared to significantly boost recall awareness. GM's ignition switch recall was most widely covered in the media between April to July. The highest volume of coverage was reached in April 2014.

It was also confirmed using Google Trends statistics. Google Trends were used to track the daily fluctuations of Web searches for the GM recall incident. The amount of Google searches for GM recall is used as a unostentatious indicator for public awareness since it provides a daily behavioural metric that is unaffected by social desirability or cognitive biases, as described by Kleinnijenhuis et al., (2015). Using this instrument, by tracking keywords “General Motors recall” and “ignition switch recall” it was possible to track daily rates of public interest for the recall from January 1 to December 31, 2014.

Figure 7: Interest trend for ignition switch recall



Source: Google Trends

The tool provides an aggregate of searches rather than a total number. Numbers show search interest in relation to the chart's highest point. A rating of 100 represents the highest popularity of the topic. A score of 50 indicates that the topic is half as popular. A score of 0 indicates that there was insufficient data for this topic. As it can be seen from the chart, the largest public interest was observed in April, after another recall announcement resulting in the total number of is 2,191,146 of recalled vehicles in the U.S. and Mary Barra testifying and apologizing for the for the company’s failure to respond quickly. As the recall crisis

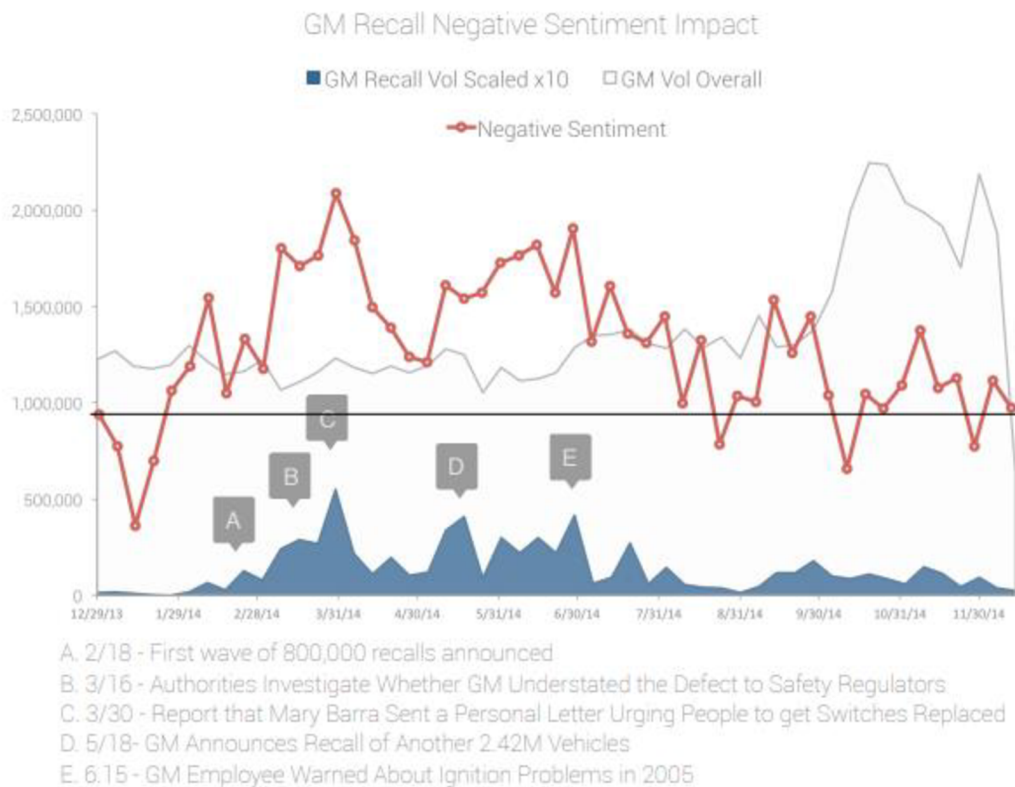
continued for GM the interest declined by half up to July, when the largest number of vehicles was recalled, and as a result high public interest was developed again.

These behavioural metrics include limitations such as consumers who are not Internet users or not using the Internet as a news source.

4.4.2 Recall sentiment impact

As was previously mentioned, the ignition recall at General Motors went through several stages, with the total period of extensive attention lasting from February to July, which resulted in an increase in negative sentiment. As presented in Figure 8, the highest amount of negative comments were observed on March 30, 2014, then negative discussions immediately declined. However, negative sentiments were later stabilized as reports that GM may have covered up the flaw and that executive management knew about it long before they informed public appeared. Only by the end of the year did the number of unfavourable comments reached pre-recall levels. It didn't mean, however, that GM was close to recovery. The ongoing investigations on the topic of covering defect by General Motors along with growing mortality toll due to the ignition switch defect increased the amount of discussions again.

Figure 8: GM Recall Negative Sentiment



Source: Phoenix Marketing International (PMI)

The impact of negative sentiment was specified by determining the amount of impacted consumers whose opinions are relevant to the further analysis of recall outcomes perceptions. The obtained data can be found in the Figure 9:

Have you heard any negative comments on General Motors recall?

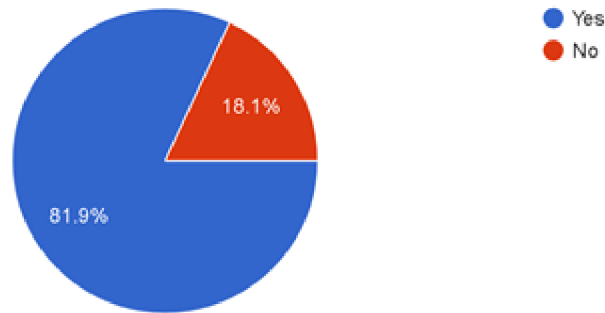


Figure 9: Consumer awareness of the negative publicity

According to the obtained data, among 160 surveyed consumers the awareness rate reached 81,9%. The rest 18,1% of respondents were not aware of any negative publicity. The findings prove that there is a high degree of awareness during the recall crisis.

4.4.3 Impact on brand perceptions

In order to reliably assess changes in customer perceptions, their attitudes to the brand before and after recall were questioned and compared. Significant changes in brand perception would determine the severity of the impact the recall has on customer attitudes. As can be seen in Figure 10, consumers attitudes to the GM prior to the recall were mostly positive. Most of the respondents stated that their attitude to the brand was favourable. 30,2% of consumers had highly favourable, while 20,1% expressed negative prior attitude.

What was your attitude towards General Motors and it's products before the recall took place?

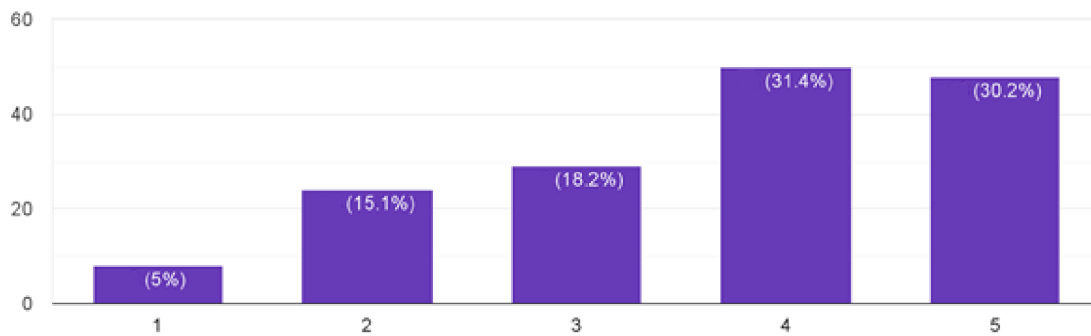


Figure 10: Consumers' brand perceptions before the recall

In Figure 11 it is evident how perceptions have changed. In general, attitudes shifted negatively as 22,6 % of respondents defined their attitudes as “Unfavourable” and 13,2 % as “Highly unfavourable”. The largest share of respondents (34,6 %) stated that their attitude was neutral. The results prove that attitudes have changed significantly, representing the considerable recall impact on consumer perceptions.

What is your attitude towards General Motors and it's products after the recall?

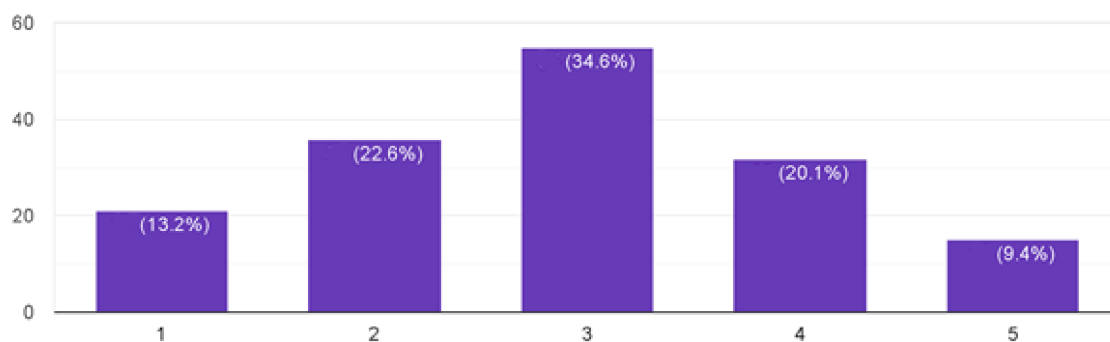


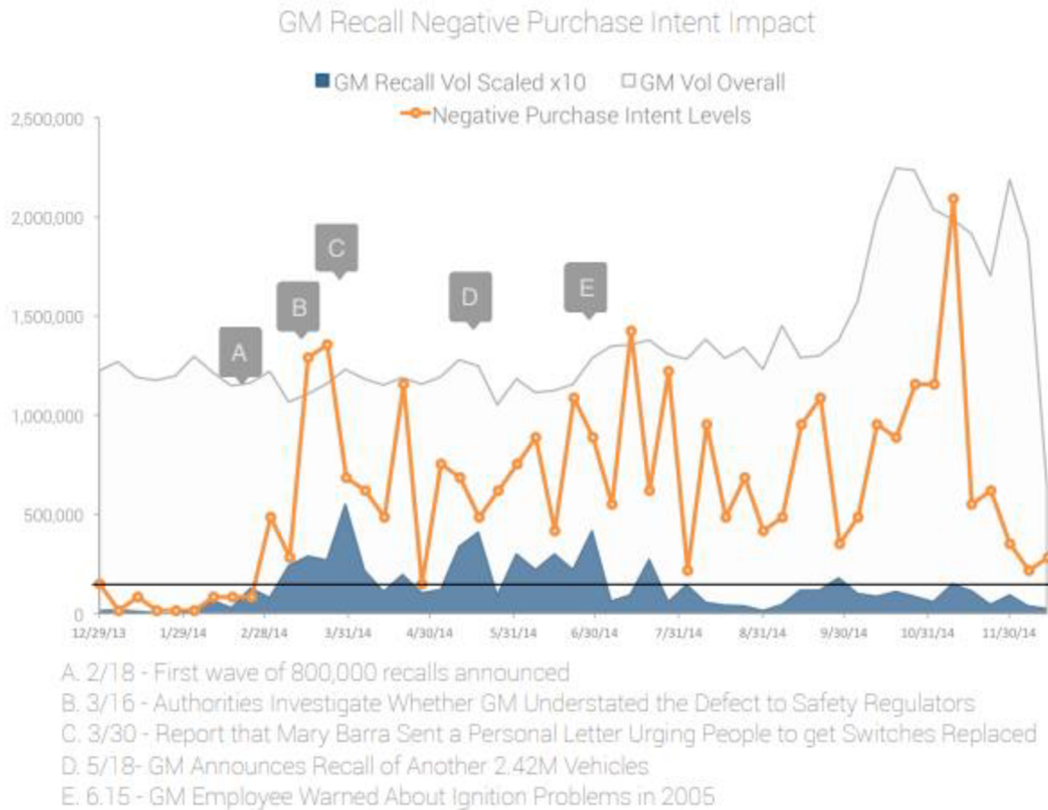
Figure 11: Consumers' brand perceptions after the recall

4.4.4 Purchase intent impact

The study collected a sample of online discussions six weeks before and six weeks after the announcement of a major recall to see how attitudes changed. During the recall, negative online discussions about purchase intent increased progressively. By the end of the year, despite negative purchase intent had not entirely returned to pre-recall levels, conversations

about GM brands and models acquisition had increased. Whenever a new recall was reported during the year, both negative purchase intent and unfavourable sentiment surged. Regarding particular events, it was observed that after six weeks, the amount of unfavourable comments tended to decrease. However, similar to the negative sentiment discussed before, the level of negative purchase intent didn't reach the pre-recall levels.

Figure 12: GM Recall Negative Purchase Intent



Source: Phoenix Marketing International (PMI)

The survey on consumers' purchase intent showed following results:

How likely are you to consider buying cars from General Motors?

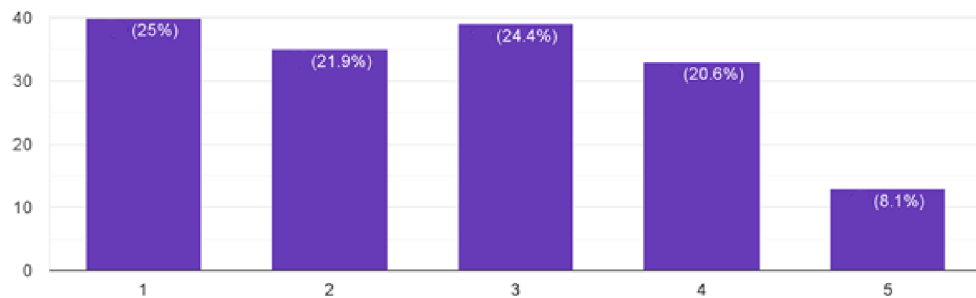


Figure 13: Consumers' Purchase Intent

Most consumers (46,9 %) decided that they are unlikely to consider purchase and in comparison with them, 28,7 % of buyers are inclined for acquisition, which allows us to conclude that the overall purchase intent is negative. The remaining large group of respondents (24,4 %) defined their intent as moderate.

4.5 Impact on company performance

4.5.1 Impact on financial performance

When a product is recalled, the automaker imposes direct financial costs related to the repairs of the vehicles involved, as well as indirect financial losses related to the damage to its brand image, lawsuits, and so on. Automotive recalls, without a doubt, result in negative financial flows for the automaker. The size of the loss of brand value and reputation is difficult to assess directly; however, the impact of a recall on shareholder wealth is more easily measurable using event research methodology based on daily stock prices. According to the underlying assumptions of event research methodology, the financial impact of an incident will be directly reflected in stock prices in an efficient market (Fama, 2021).

In order to identify what consequences General Motors faced in regards of its performance, the financial indicators such as trade volume and share price at the end of the trading day were analysed using daily data from Yahoo Finance, following Cheng, (2016). The study gathered data throughout the 2013-2015 period to see how the company's financial performance reacted to the recall events and whether it faced any major long-term consequences or not.

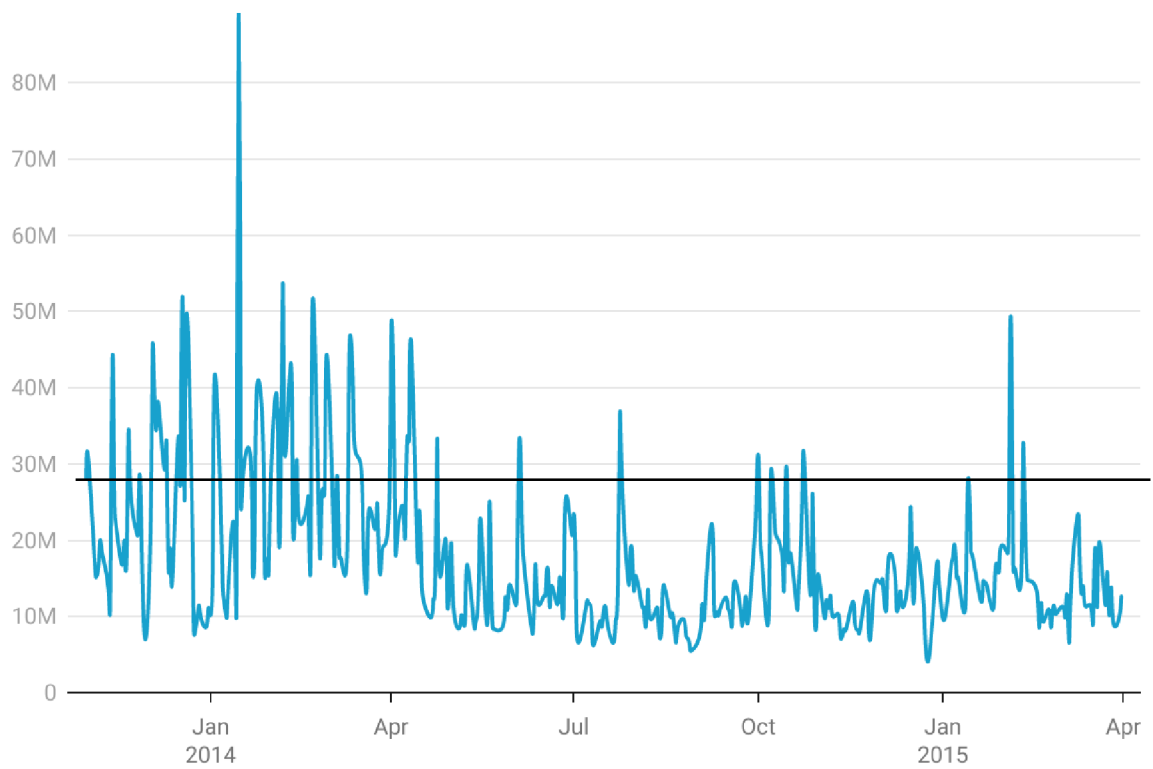
A costly short-term loss can be simply overcome in large corporations, but when shareholders and consumers lose trust, there may be longer-term consequences, such as stock price declines. Figure 14 represents the share price scale throughout previous and following year. It was discovered that General Motors experienced negative short-run consequences during the recall. There was an overall negative trend during 2014, the prices significantly fell after the initial recall wave, but were back to the pre-recall level already by July. The extended recall was also followed by a significant decline, but prices were able to recover completely in 2015.

Figure 14: General Motors share prices in 2013-2015



Source: Yahoo Finance

Figure 15: General Motors Trade Volume in 2014



Source: Yahoo Finance

As another evident consequence of a product-harm crisis is an instant decrease in own-brand sales, the sales pattern was further analysed, presenting the result in Figure 15 above. General Motors' sales before the recall events were at high level and remained so after the first recall announcement. However, as the crisis progressed, trade volumes dropped significantly and were mostly below the pre-recall level. In the longer run, GM's sales seem to recover from the crisis by the spring 2015.

Overall, General Motor's full-year net income attributable to common stockholders was \$2.8 billion in 2014, down from \$3.8 billion the previous year (Annual Report, 2014). In 2014, core automotive operational performance improved, but increased recall and reorganization expenses, as well as a net loss from special items.

4.5.2 Impact on reputation

In this study, we are measuring brand reputation using the survey. For this purpose, such characteristics as Quality perception, Loyalty and Trust were analysed. From Figure 16 it is evident that consumer confidence in the quality of the product was severely shaken by the recall, as majority of the respondents described their perceptions of quality as highly negative or negative. Another large group of respondents expressed neutral position and the rest relatively small amount of respondents are positively perceiving product quality.

What is your perception of product quality of General Motors In relation to the recall?

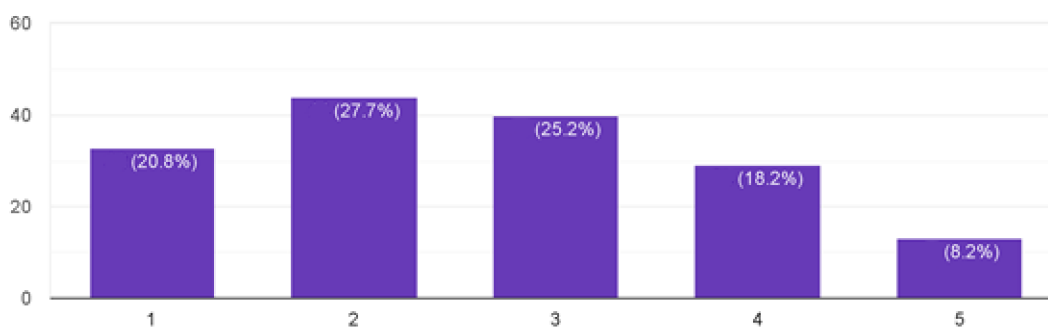


Figure 16: Perception of the product quality

The next characteristic observed was consumer loyalty. The results in Figure 17 show that very small amount of consumers consider themselves loyal to the Brand while majority completely or partially deny brand loyalty. Finally, as in the previous case, a relatively big amount of consumers find themselves neutral.

Do you consider yourself loyal to General Motors?

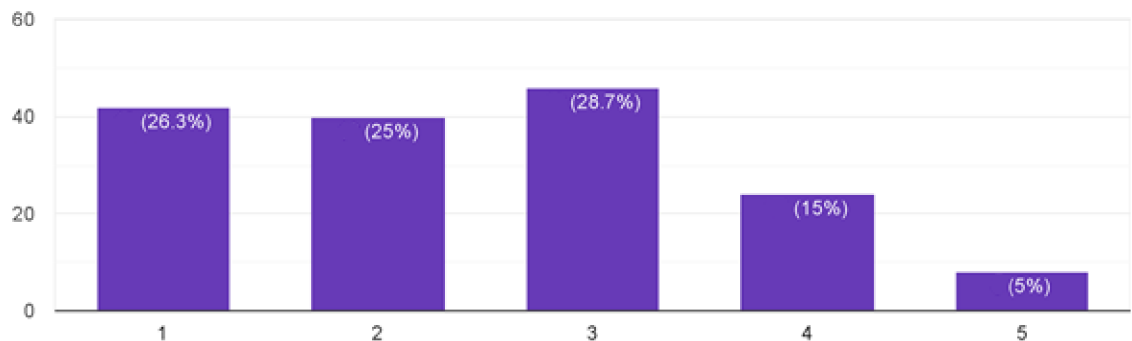


Figure 17: Brand loyalty

The last characteristic questioned was consumer trust. Unlike the previous ones, this aspect showed more positive result. The most consumers (43,2 %) declared that they're either agree or totally agree with the statement of trust while only 31,9 % stated that they don't trust the Brand. The remaining proportion of consumers (25 %) have vague confidence.

Do you still trust General Motors?

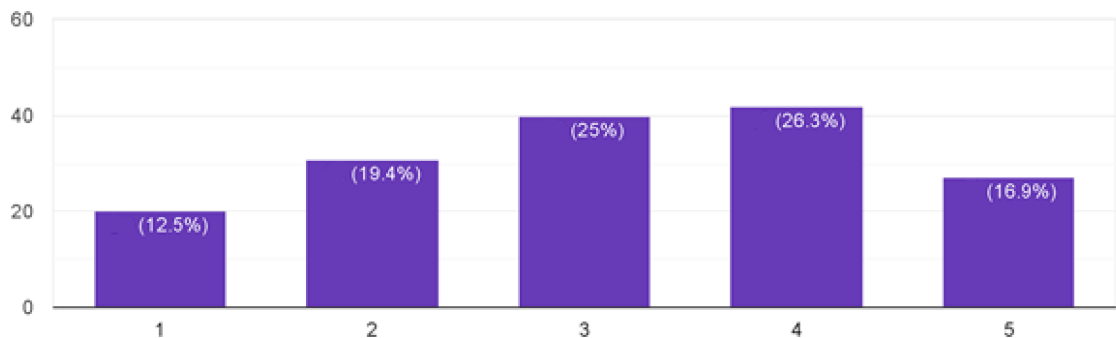


Figure 18: Brand trust

4.5.3 Impact on corporate image

After the recall, the corporation behaved responsibly by accepting full responsibility and delivering apologies with corrective actions. The following corrective actions were implied: the victims claim fund was established, employees were fired, a global safety leader with 35 safety investigators was appointed to address issues faster, the security support program was improved to empower employees and ethical advocacy was carried out through the

worldwide product integrity organization. In attempt to restore public confidence and repair relationships, the company used two-way symmetrical communication with transparency. In addition, GM developed three new core values which include customer, relationship, and respect, to meet their new universal code of consumer safety.

In order to evaluate how consumers perceive these changes and whether these corporate image changes have a positive impact, two aspects were reviewed – consumer satisfaction with crisis management measures and communication and satisfaction with company and its products in general. Figure 19 demonstrates the evaluation of the first aspect. It was discovered that crisis measures, and communication were mainly successful as most of the consumers were satisfied with them. However, the amount of consumers which expressed moderate satisfaction was lower than the proportion of unsatisfied people.

How satisfied are you with the GM recall measures and communication?

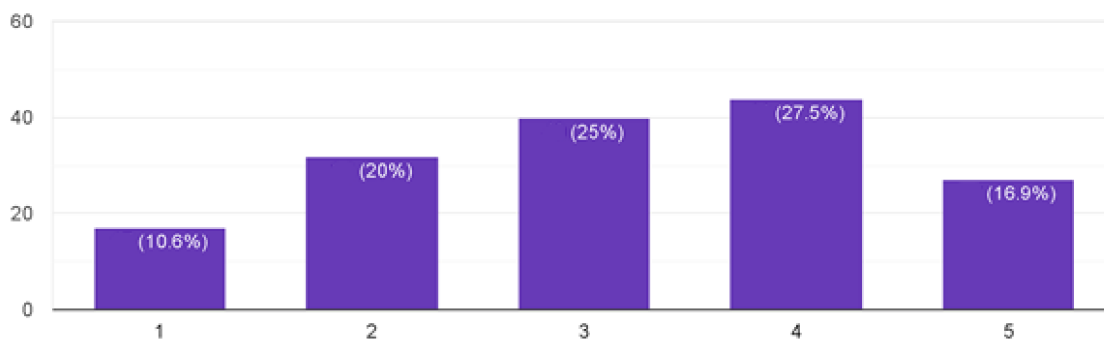


Figure 19: Consumer satisfaction with recall management

The evaluation of the second aspect also indicated a positive situation (Figure 20). In the long-term prospective most of the consumers are satisfied with the company and their products which represents successful brand image recovery and quality issues management. Yet there are unsatisfied consumers, although they are in the minority compared to those who express either neutral or satisfied position.

How satisfied are you with the General Motors and it's products now?

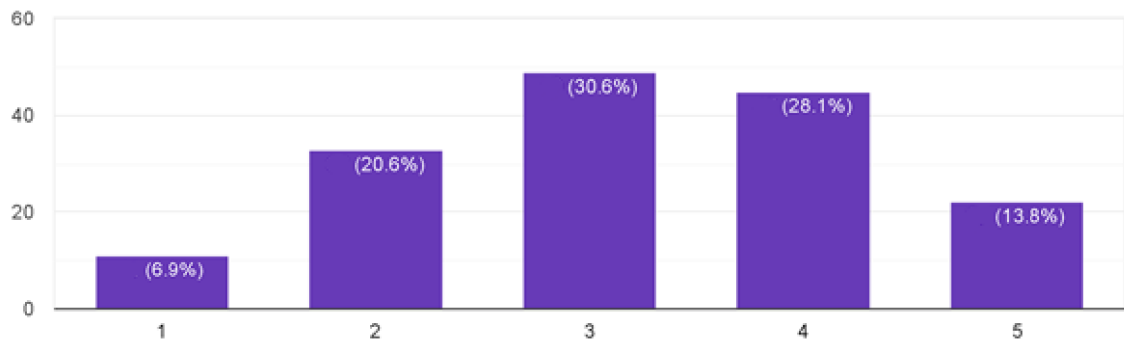


Figure 20: Consumer satisfaction with company and products

4.6 Discussion and limitations

Current study was focused on determining product recall's influence on companies. Using the case study, we were able to analyse consumers' reflections on the recall and crisis management strategy which shaped the outcomes of the crisis. Based on the results, the recall had a negative impact on company reputation. As a result of the recall, consumers were concerned with the product quality, therefore their brand attitudes deteriorated, and purchase intentions decreased. Moreover, brand loyalty was also found to be low. On the other hand, company performance was not severely damaged, consumers continue to trust the company, and give positive feedback on company and its products. Financial indicators of the company performance also recovered quickly without causing long-term negative consequences.

Negative consequences could have been avoided if the recall was made 10 years earlier. One critical thing GM might have done differently to avoid the problem was using proactive respond strategy and the concept of issue management when the defect was discovered. The expenses would have been much lower, people wouldn't have been hurt and there would be no need to continuously attempt to rebuild their image or reputation. However, it could be stated that General Motors managed the crisis effectively. From the outset of the recall, the new CEO's competence and abilities were obvious. She demonstrated the compassionate side of GM by showing concern and mentioning the fact that she is a mother with children, which helped her connect with customers. Apology and remedial action with accommodation were suitable response methods used in this incident which was proved by

the high evaluations of recall management measures. Eventually, the General Motors has rebuilt and redesigned its organization to become a sustainable long-term growth company. The main limitation of this research lies in its small sampling. In future research it is necessary to increase sample size and power of study to determine influence more precisely. Another limitation is that the study is directly reviewing the parent brand without considering individual subsidiary brands. Analysis of the spillover effects on the individual subsidiary brands should help to better determine the severity of the product recall impact.

5 Conclusion

The main objective of this thesis was to study the significance of product recall on companies, investigating some characteristics of the company associated with product recall. The specific characteristics included brand perception, company reputation and performance. The results reveal that product recall has a moderate impact on company. There are aspects of the affected company that suffer negative consequences and some that were not heavily affected.

Based on the analysis of the GM ignition recall, it is reasonable to say that recalls have a long-term impact on customer perceptions of brand image and desirability, as well as preserving a lifetime longer than six months. Consumers attitudes to the brand significantly deteriorate after the recall regardless of the prior favourable perception. The purchase intentions are also weakening as a result of the product recall.

However, positive aspects were also found in the recall situations. Obviously, there are short-term metrics such as sales and stock prices that are declining, but in the long run no financial damage was determined. Results indicate that the company performance indicators such as stock market and trade volume react insignificantly to recall announcements.

The most essential lesson manufacturers should take away from the GM ignition switch recall, according to this, is that to preserve brand reputation, companies should avoid denial strategies and react instantly and decisively, demonstrating unambiguous support and care for all possibly impacted customers.

6 References

- Abimbola, T., Trueman, M., Iglesias, O., Abratt, R., & Kleyn, N. (2012). Corporate identity, corporate branding and corporate reputations. *European Journal of Marketing*.
- Ahsan, K., & Gunawan, I. (2014). Analysis of product recalls: Identification of recall initiators and causes of recall. *Operations and Supply Chain Management: An International Journal*, 7(3), 97–106.
- Argenti, P. A., & Druckemiller, B. (2004). Reputation and the corporate brand. *Corporate Reputation Review*, 6(4), 368–374.
- Atiyeh, C., & Blackwell, R. (2017). Massive Takata airbag recall: Everything you need to know, including full list of affected vehicles. *Car & Driver*.
- Baker, W. E. (1999). When can affective conditioning and mere exposure directly influence brand choice? *Journal of Advertising*, 28(4), 31–46.
- Berman, B. (1999). Planning the inevitable product recall. *Business Horizons*, 42(2), 69–70.
- Bernon, M., Bastl, M., Zhang, W., & Johnson, M. (2018). Product recalls: The effects of industry, recall strategy and hazard, on shareholder wealth. *International Journal of Business Science & Applied Management*, 4.
- Boin, A. (2004). Lessons from crisis research. *International Studies Review*, 6(1), 165–194.
- Chen, Y., Ganesan, S., & Liu, Y. (2009). Does a firm's product-recall strategy affect its financial value? An examination of strategic alternatives during product-harm crises. *Journal of Marketing*, 73(6), 214–226.
- Cheng, Y. (2016). Who is leading whom in the General Motors recall: Understanding media impacts on public relations efforts, public awareness, and financial markets. *Research Journal of the Institute for Public Relations*, 3(1), 1–25.
- Cleeren, K., Dekimpe, M. G., & Helsen, K. (2008). Weathering product-harm crises. *Journal of the Academy of Marketing Science*, 36(2), 262–270.
- Coombs, T. W. (2007). *Crisis management and communications*.
- Coombs, W. T. (1998). An analytic framework for crisis situations: Better responses from a better understanding of the situation. *Journal of Public Relations Research*, 10(3), 177–191.

- Coombs, W. T. (2007). Protecting organization reputations during a crisis: The development and application of situational crisis communication theory. *Corporate Reputation Review*, 10(3), 163–176.
- Coombs, W. T., & Holladay, S. J. (2002). Helping crisis managers protect reputational assets: Initial tests of the situational crisis communication theory. *Management Communication Quarterly*, 16(2), 165–186.
- Coombs, W. T., & Holladay, S. J. (2006). Unpacking the halo effect: Reputation and crisis management. *Journal of Communication Management*.
- Dawar, N., & Lei, J. (2009). Brand crises: The roles of brand familiarity and crisis relevance in determining the impact on brand evaluations. *Journal of Business Research*, 62(4), 509–516.
- Dawar, N., & Pillutla, M. M. (2000). Impact of product-harm crises on brand equity: The moderating role of consumer expectations. *Journal of Marketing Research*, 37(2), 215–226.
- Dean, D. H. (2004). Consumer reaction to negative publicity: Effects of corporate reputation, response, and responsibility for a crisis event. *The Journal of Business Communication (1973)*, 41(2), 192–211.
- Duan, W., Gu, B., & Whinston, A. B. (2008). The dynamics of online word-of-mouth and product sales—An empirical investigation of the movie industry. *Journal of Retailing*, 84(2), 233–242.
- Ein-Gar, D., Shiv, B., & Tormala, Z. L. (2012). When blemishing leads to blossoming: The positive effect of negative information. *Journal of Consumer Research*, 38(5), 846–859.
- Fama, E. F. (2021). Efficient capital markets a review of theory and empirical work. *The Fama Portfolio*, 76–121.
- Fink, S., & Association, A. M. (1986). *Crisis management: Planning for the inevitable*. Amacom,.
- Gray, E. R., & Balmer, J. M. T. (1998). Managing corporate image and corporate reputation. *Long Range Planning*, 31(5), 695–702.
- Holtzhausen, D. R., & Roberts, G. F. (2009). An investigation into the role of image repair theory in strategic conflict management. *Journal of Public Relations Research*, 21(2), 165–186.
- Hora, M., Bapuji, H., & Roth, A. V. (2011). Safety hazard and time to recall: The role of

- recall strategy, product defect type, and supply chain player in the US toy industry. *Journal of Operations Management*, 29(7–8), 766–777.
- Hough, M. G., & Spillan, J. E. (2005). Crisis planning: Increasing effectiveness, decreasing discomfort. *Journal of Business & Economics Research (JBER)*, 3(4).
- Kleinnijenhuis, J., Schultz, F., Utz, S., & Oegema, D. (2015). The mediating role of the news in the BP oil spill crisis 2010: How US news is influenced by public relations and in turn influences public awareness, foreign news, and the share price. *Communication Research*, 42(3), 408–428.
- Margolis, J. D., Elfenbein, H. A., & Walsh, J. P. (2009). Does it pay to be good... and does it matter? A meta-analysis of the relationship between corporate social and financial performance. *And Does It Matter*.
- Marucheck, A., Greis, N., Mena, C., & Cai, L. (2011). Product safety and security in the global supply chain: Issues, challenges and research opportunities. *Journal of Operations Management*, 29(7–8), 707–720.
- Mowen, J. C., Jolly, D., & Nickell, G. S. (1981). Factors influencing consumer responses to product recalls: a regression analysis approach. *ACR North American Advances*.
- O'Reilly III, C. A. (1982). Variations in decision makers' use of information sources: The impact of quality and accessibility of information. *Academy of Management Journal*, 25(4), 756–771.
- Pearson, C. M., & Clair, J. A. (1998). Reframing crisis management. *Academy of Management Review*, 23(1), 59–76.
- Podnar, K., & Balmer, J. (2013). *Contemplating corporate marketing, identity and communication*. Routledge.
- Porchetta, J. (2015). *Ethical Analysis of General Motors Ignition-Switch Recall*.
<https://doi.org/10.13140/RG.2.1.1581.1687>
- Quanhong, L., & Xin, Z. (2015). Corporate Product Recall and Its Influence on Corporate Performance. *2015 3d International Conference on Advanced Information and Communication Technology for Education (ICAICTE-2015)*, 241–246.
- Rhee, M., & Valdez, M. E. (2009). Contextual factors surrounding reputation damage with potential implications for reputation repair. *Academy of Management Review*, 34(1), 146–168.
- Rialti, R., Zollo, L., Caliandro, A., & Ciappei, C. (2016). Social media strategies to protect brand image and corporate reputation in the digital era: a digital investigation of the

- Eni vs. Report case. *Mercati & Competitività*.
- Rubel, O., Naik, P. A., & Srinivasan, S. (2011). Optimal advertising when envisioning a product-harm crisis. *Marketing Science*, 30(6), 1048–1065.
- Salvador, A. B., & Ikeda, A. A. (2018). Brand crisis management: the use of information for prevention, identification and management. *Revista Brasileira de Gestão de Negócios*, 20(1), 74–91.
- Seeger, M. W. (2006). Best practices in crisis communication: An expert panel process. *Journal of Applied Communication Research*, 34(3), 232–244.
- Sellnow, T. L., & Seeger, M. W. (2021). *Theorizing crisis communication*. John Wiley & Sons.
- Shrivastava, P., & Siomkos, G. (1989). Disaster containment strategies. *Journal of Business Strategy*.
- Siegel, D. S., & Vitaliano, D. F. (2007). An empirical analysis of the strategic use of corporate social responsibility. *Journal of Economics & Management Strategy*, 16(3), 773–792.
- Siomkos, G. J., & Kurtzard, G. (1994). The hidden crisis in product-harm crisis management. *European Journal of Marketing*.
- Smits, S. J., & Ally, N. E. (2003). “Thinking the unthinkable”—Leadership’s role in creating behavioral readiness for crisis management. *Competitiveness Review: An International Business Journal*.
- Ullrich, S., & Brunner, C. B. (2015). Negative online consumer reviews: effects of different responses. *Journal of Product & Brand Management*.
- Weinberger, M. G., Allen, C. T., & Dillon, W. R. (1981). The impact of negative marketing communications: The consumers union/Chrysler controversy. *Journal of Advertising*, 10(4), 20–47.
- Wynne, A. J., & Hoffer, G. E. (1976). Auto recalls: do they affect market share? *Applied Economics*, 8(3), 157–163.

(2014). *Annual Report*. General Motors Company. Retrieved from

<https://www.sec.gov/Archives/edgar/data/1467858/000146785815000036/gm201410k.htm>

- Basu, T. (2014, March 31). Timeline: A History Of GM's Ignition Switch Defect. NPR. Retrieved from <https://www.npr.org/2014/03/31/297158876/timeline-a-history-of-gms-ignition-switch-defect>
- Bigman, D. (2013, October 30). How General Motors Was Really Saved: The Untold True Story Of The Most Important Bankruptcy In U.S. History. Forbes. Retrieved from <https://www.gminsidenews.com/threads/how-general-motors-was-really-saved.140273/>
- Bloomberg. (2014, June 5). GM CEO Mary Barra says 15 workers fired after investigation into deadly ignition defect revealed neglect. Bloomberg News. Retrieved from <https://financialpost.com/transportation/gm-ceo-mary-barra-recall-probe-finds-pattern-of-incompetence-and-neglect-but-no-evidence-of-a-cover-up-by-the-company>
- Burns, H. (2014, December 30). Fortune names GM's Mary Barra crisis manager of the year. Bizwomen . Retrieved from <https://www.bizjournals.com/bizwomen/news/latest-news/2014/12/fortune-names-gm-s-mary-barra-crisis-manager-of.html?page=all>
- Jusko, J. (2014, November 14). CEO Mary Barra is Driving Culture Change at General Motors. Industry Week. Retrieved from <https://www.industryweek.com/operations/quality/article/21964120/ceo-mary-barra-is-driving-culture-change-at-general-motors>
- Krisher, T. (2014, November 10). Emails Show GM Ordered Switches Nearly Two Months Before Recall. CBS Detroit. Retrieved from <https://detroit.cbslocal.com/2014/11/10/gm-ordered-switches-nearly-two-months-before-recall/>
- McGrath, M. (2014, June 30). Forbes. General Motors Recalls Another 7 Million Vehicles, Some Dating Back To 1997. Retrieved from <https://www.forbes.com/sites/maggiemcgrath/2014/06/30/general-motors-recalls-another-7-million-vehicles-some-dating-back-to-1997/?sh=ed669361dac5>
- Rogers, A. (2014, May 16). GM to Pay Record \$35 Million Fine Over Ignition Switch Recalls. The Time. Retrieved from <https://time.com/102906/gm-fine-ignition-recalls/>
- Rushe, D. (2014, April 1). GM boss Mary Barra offers apologies but few answers over car recall crisis. The Guardian. Retrieved from

<https://www.theguardian.com/business/2014/apr/01/gm-boss-mary-barra-recall-congressional-grilling>

Shepardson, D. (2015, January 1). Recall woes follow GM into new year. The Detroit News. Retrieved from <https://eu.detroitnews.com/story/business/autos/general-motors/2015/01/01/gm-recalls-suvs-trucks-ignition-issue/21149405/>

Townsend, M. (2014, March 20). GM's Barra Showing Compassion Contrasts With Mishandlers. Bloomberg. Retrieved from <https://www.teminandcompany.com/gm-s-barra-showing-compassion-contrasts-with-mishandlers/>

Valukas, A. R. (2014). Report to board of directors of general motors company regarding ignition switch recalls.

7 Appendix

Survey on consumer perceptions of the General Motors ignition switch recall

Dear Respondent,

Due to the fact that I am currently working on my thesis on the impact of a product recall, I would like to ask you to take a little time to fill out the following form about your personal opinion with the product recall and its manufacturer. This survey is primarily intended for car owners, who are customers of General Motors or are aware of their ignition switch recall. The mentioned recall was issued in 2014 by General Motors and included Chevrolet Cobalts, Chevrolet HHRs, Saturn Ions, Saturn Skys, Pontiac G5s, and Pontiac Solstices that were produced between 2003 and 2011.

If you will have any questions, please don't hesitate to contact me on victoria.t.969@gmail.com. Thank you for your time and cooperation.

1. Where are you from?

Mark only one oval.

- Europe
- Asia
- North America
- South America
- Africa

- Other:

2. What is your gender?

Mark only one oval.

- Male
- Female
- Prefer not to say

3. What is your age?

Mark only one oval.

- 18-20
- 21-29
- 30-39
- 40-49
- 50-59
- 60 or older

4. What is your occupation?

Mark only one oval.

- Student
- Employed for wages
- Self-employed
- Retired
- Other:

5. Do you own a car?

Mark only one oval.

- Yes
- No

6. Have you heard any negative comments on General Motors recall?

Mark only one oval.

- Yes
- No

7. What was your attitude towards General Motors and its products before the recall took place?

Mark only one oval.

Unfavourable 1 2 3 4 5 Favourable

8. What is your attitude towards General Motors and its products after the recall?

Mark only one oval.

Unfavourable 1 2 3 4 5 Favourable

9. How satisfied are you with the GM recall measures and communication?

Mark only one oval.

Not satisfied at all 1 2 3 4 5 Very satisfied

10. What is your perception of product quality of General Motors In relation to the recall?

Mark only one oval.

Highly negative 1 2 3 4 5 Highly positive

11. How likely are you to consider buying cars from General Motors?

Mark only one oval.

Not likely at all 1 2 3 4 5 Very likely

12. How satisfied are you with the General Motors and its products now?

Mark only one oval.

Not satisfied at all 1 2 3 4 5 Very satisfied

13. Do you consider yourself loyal to General Motors?

Mark only one oval.

Totally disagree 1 2 3 4 5 Totally agree

14. Do you still trust General Motors?

Mark only one oval.

Totally disagree 1 2 3 4 5 Totally agree