

Crisis Management

BP Deepwater Horizon disaster

Gaurav Bhatia

Module: Leadership Management Skills
Course: MBA International Trade

Lecturer: Prof. Dr. Markus Holz

July 30, 2021

Abstract

In order to understand the characteristics of the corporate culture and leadership, it is necessary to see how leaders had acted in times of crisis. It's necessary to learn from the disasters in the past and what strategies companies opted to mitigate them. In this report, the role of leadership and crisis management of Beyond Petroleum (BP) and the Deepwater Horizon disaster is discussed. Furthermore, an evaluation of general leadership skills, crisis management strategies of the companies is discussed. Later, How BP opted for strategies during the pre-disaster phase, during the disaster, and after the disaster is studied. Lastly, recommendations based on the findings are outlined.

Contents

1	Introduction	4
2	Background	4
2.1	Crisis Management & it's definition	5
2.2	Leadership and crisis management	5
2.2.1	Leadership and crisis management	5
2.2.2	Corporate culture and leadership behavior	6
3	BP and the Deepwater Horizon Disaster	7
3.1	Pre Crises era	7
3.1.1	Crisis Prevention	8
3.1.2	Preparation to crisis	8
3.2	Leadership roles at Response phase to the crisis	9
3.2.1	Chain of Command	9
3.2.2	The role of CEO	10
3.2.3	Communication failure within the Organization	11
3.3	Leadership and post crises era	11
4	Recommendations	12
5	Conclusion	13
	References	14

1 Introduction

This research report is the analysis of the case study of Macondo Well Blowout which is famously known as the BP Deepwater Horizon Disaster that took place on 20th April 2010 at the cost of the gulf. The disaster which till date considered as the biggest oil spill disaster in the USA (Pranesh et al. 2017).¹ It caused not only financial losses to BP but also caused them huge loss in their brand reputation and a questionable leadership (James & Wooten 2011).²

To balance the situation, BP tried to communicate with the stakeholders, authorities by using various tools and techniques. BP's efforts for communication during and after the disaster were not very well received by the public, press, and experts.³ It's interesting to see that researchers, experts, journalists, communication experts, etc., all sections consider all the efforts of BP as incompetent, ineffective, and poor leadership which is insensitive, unemphatic and non-truthful (Heller 2012). This report mainly focused on the analysis of failures of dynamic leadership skills specifically in the area of risk, crisis & communication management. It tries to find out the failures associated with leadership style by analyzing available data from different available research & reports. It also tries to put forward leadership lessons that can be learned from this disaster.

The report structure is as follows: In Section 2, Background research is done. Crisis Management & its definitions and Corporate culture and leadership behavior in terms of crisis management are discussed. In section 3, BP and the deepwater horizon disaster are discussed. This section is divided into 3 parts, pre-crisis era, during the crisis, and post-crisis era. In a pre-crisis era, Crisis Prevention & Preparation for the crisis are discussed. During the crisis, what chain of command company followed, the role of the CEO, and communication failure within the organization were discussed. lastly in the post-crisis era, how a company tries to rebuild its image is discussed. In section 4, Recommendations to be followed at times of crisis and lessons learned from the disaster were discussed. Section 5 describes the conclusion/summary of the report.

2 Background

This chapter discusses the literature associated with Leadership in crisis management. The first section shows a detailed understanding of crisis management while the second section explains the Leadership principles needed to demonstrate at times of crisis.

¹Pranesh, Venkat, Karthik Palanichamy, Owodunni Saidat, and Nyasige Peter. "Lack of dynamic leadership skills and human failure contribution analysis to manage risk in deepwater horizon oil platform." *Safety science* 92 (2017): 85-93.

²James, Erika Hayes, and Lynn Perry Wooten. "Crisis leadership and why it matters." *The European Financial Review* 61 (2011).

³Heller, Nathan A. "Leadership in crisis: An exploration of the British Petroleum Case." *International Journal of Business and Social Science* 3, no. 18 (2012).

2.1 Crisis Management & it's definition

Jonathan Bernstein, an expert in crisis and reputation management, suggested steps manage company reputation & image by handling crisis professionally & efficiently (Bernstein 2004). Bernstein suggested that any company should try to prevent a crisis at the first step, and if it's not possible then try to minimize the risks of occurrence of crisis.⁴

Crisis management can be defined as the "function of identifying, evaluating, understanding and supporting a serious situation, that could cause damage or harm the internal process, the image and the reputation of the firm, affecting its stakeholders."⁵

Bernstein also stated that "every \$1 invested in prevention, training or response, an organization avoids \$7 in losses".⁶ Thus, crisis management is important because it could help to strengthen communication boost the morale of the company's employees, protect the operations of the business, protect the company by avoiding legal actions, diminish the negative impacts of the news from the media and try to maintain the investor's confidence. In the case of BP, its crisis management was very weak because it didn't help to cover all the points mentioned above.

2.2 Leadership and crisis management

At times of crisis, leaders must promote motivation, transparency & Security necessary to mitigate adverse reactions and maintain a good level of commitment from employees. Based on research, published by Arizona State University in 2017 (Bundy et al. 2017), it is suggested that the "leadership role of the CEO is crucial in crisis time because they must permeate the confidence/trust of the entire organization and reduce the impact of the crisis with clear and timely responses to the stakeholders."⁷

2.2.1 Leadership and crisis management

Only good leadership in times of crisis can handle critical situations. The leader must possess the ability to influence others and guide them, motivate them to work in the same direction with the same objective to mitigate the crises as soon as possible. According to Forbes⁸, a good leader should have the following principles/characteristics:

⁴Bernstein, Jonathan. "The 10 steps of crisis communications." Crisis Response, prevention, planning and, Training 106 (2004).

⁵Ivestopedia: "Crisis Management" <https://www.investopedia.com/terms/c/crisis-management.asp>, accessed on 13.07.2021 at 12:29

⁶Bernstein, Jonathan, and Bruce Bonafede. Manager's guide to crisis management. New York, NY: McGraw-Hill, 2011.

⁷Bundy, Jonathan, Michael D. Pfarrer, Cole E. Short, and W. Timothy Coombs. "Crises and crisis management: Integration, interpretation, and research development." Journal of management 43, no. 6 (2017): 1661-1692.

⁸Simon, E. FORBES (2014) Los 10 Valores de un Líder. Retrieved from: <http://forbes.es/business/4645/los-10-valores-de-un-lider/>, Accessed on 30.07.2021 at 11:56

Good communication skills: Transmitting ideas in a clear and concise manner is one of the main tasks of the leader. The objectives, goals, and vision must be very clear and thus the whole team should be on the same page. Based on the regulation circle of leadership, there are 5 steps for communication, which are basically: setting objectives, planning, deciding, realization, and check and control.

Competence: The leader must hold good problem-solving skills. They must provide the needed tools and support to the employee so that they can fulfill the requirement in due time and with high quality.

Honesty: Honesty is one of the most important qualities which brings confidence and respect among employees and teams. Being crystal clear with decisions, no last moment surprises, clear rules, and fair treatments, etc., strengthens the confidence and motivation of the team.

Credibility: The clear actions of leaders must be reflected within the organization. This helps him to gain the trust of the peer and they believe that what he says he always does the same. There is no difference in what he/she is saying and what he/she is doing.

Commitment: A leader must show his commitment to the company and play an active role. With this, he laid down a good culture where his he/she can expect the same commitment from his colleagues.

2.2.2 Corporate culture and leadership behavior

Edgar defined Corporate Culture as "the functioning of the company on a day-to-day basis and is tangible through the behaviors and work routines of the employees, which is complemented by the managerial work developed by the management and supervision of the bosses in each department. Therefore, corporate culture within a company is very useful to detect problems and find a solution as soon as possible."⁹ A research made by Bertelsmann Stiftung and the consulting company Booz Allen Hamilton shows ten key dimensions of companies as "outstanding examples of a successful corporate culture, which placed them in a strong position as they faced challenges to come"¹¹. These dimensions are: "common goal orientation; corporate social responsibility; commonly-held beliefs, attributes, and values, independent and transparent corporate governance, participative leadership, entrepreneurial behavior, continuity in leadership, ability to adapt and integrate; customer orientation; and shareholder-value orientation."¹⁰ Based on the characteristics of a leader as well as the corporate culture and leadership behavior as highlighted, this report will analyse the leadership in BP and the Deepwater Horizon disaster as well as its crisis management.

⁹Schein, Edgar H. *Organizational culture and leadership*. Vol. 2. John Wiley Sons, 2010.

¹⁰Schein, Edgar H. *Organizational culture and leadership*. Vol. 2. John Wiley Sons, 2010.

3 BP and the Deepwater Horizon Disaster

3.1 Pre Crises era

The Deepwater Horizon was not the first accident that happens in BP.¹¹ In Dec 1965, thirteen crew members were found dead due to collapsing of BP oil rig Sea Gem while it was being moved. Another accident took place in Texas in March 2005 when BP's refinery caught fire due to an explosion in the refinery. 15 dead and more than 170 workers were injured in the accident. In 2006, major environmental damage was reported in Alaska when an oil spill resulted in heavy pipeline corrosion (de Wolf 2013) .

Besides that many environmentalists, social workers, journalists cited BP as among the worst companies operating in the USA. In 2000, Corp Watch stated BP is one among the top ten companies¹² operating in the USA (Schoenberg 2005). Corp Watch stated that BP has paid around 48 million fines¹³ to settle penalties and lawsuits on different violations. Environmental Protection Agency describes BP as the most polluting company in the US in 2001. In the same year, Mother Jones Magazine also put BP in their list of top ten worst corporations based on human rights and environmental effects¹⁴. In 2004, The Texas Public Interest Research Group claimed that more than 3000 accidents have happened in BP's U.S. chemical plants and refineries in the past 25 years. This number was enough to prove about low safety measures practiced by BP, compared to other market leader(de Wolf 2013).

Instead of focusing on improvement in safety, BP chooses a marketing and lobbying approach. BP invested a huge sum of 625 million dollars for lobbying in Washington from 2004 to 2009. In fact in 2009 only BP was suspected to use millions of dollars to block attempts of strict safety regulations.¹⁵ Similarly to change its brand image into more environment friendly BP changes its name to " Beyond Petroleum" from "British Petroleum", with green and yellow sunburst as their new logo.

An aggressive 200 million PR campaign was launched by BP, which not only create brand awareness among consumers from 4 percent to 65 percent but also create an image of the socially responsible company by winning an environment-friendly company among oil sector award in 2007. In the same year, the American market association awarded BP with a Gold award. BP also tries to build its image as a responsible company that is working tirelessly towards climate change. Publishing annual sustainability reports, promoting renewable sources of energy, etc., were some of the major steps in that direction. But, at the same

¹¹de Wolf, Daniel. "Crisis Management: Lessons Learnt from BP Deepwater Horizon Spill Oil." *Business Management and Strategy* 4, no. 1 (2013): 69-90.

¹²Schoenberg, Allan. "Do crisis plans matter? A new perspective on leading during a crisis." *Public relations quarterly* 50, no. 1 (2005): 2.

¹³<https://www.corpwatch.org/article/usa-ten-worst-corporations-2000>, accessed on 03.07.2021 at 20:00

¹⁴<https://www.motherjones.com/politics/2010/05/bp-coated-sludge-after-years-greenwashing/>, accessed on 03.07.2021 at 21:00

¹⁵<https://economictimes.indiatimes.com/news/international/us-sees-millions-spent-for-lobbying-in-09/>, accessed on 03.07.2021 at 21:10

time, the French social rating agency Vigeo reviewed, before the accident, the BP rating. Vigeo rated BP as the worst energy company in terms of preventing and controlling pollution accident risks where BP was only able to score 26/100 (below the industry average which is equal to 31/100).

3.1.1 Crisis Prevention

In this part, we will analyze what was the role of top leadership which consists of Tony Hayward, CEO of British Petroleum, and his team for Macondo Well Project in one of the largest oil disasters in history. In this case, BP was the authority for operational decision-making and they worked together with Transocean employees, who performed the majority of the work of the rig ¹⁶

It's worth noticing as mentioned previously that BP was encountering many accidents and it was never serious to prevent them. To add, Hayward focused more on strict cost-cutting measures that dramatically transformed the structure of the organization instead of focusing more on security issues that may have saved the lives of 11 workers and prevented the spill of more than 700 tons of oil in the Gulf of Mexico in 2010 (Ingersoll et al. 2012). Baker report also highlighted that "the company had cut back on maintenance and safety measures at the plant in order to curtail costs, and the responsibility for the explosion ultimately rested with company senior executives"¹⁷ In fact, none of the corporate messages of the company were related to security processes. Therefore, the leader of BP could not expect a real commitment from his team on safety issues because the company did not have a clear picture in this area. It was very clear that leadership was not at all serious with respect to safety standards, employee safety, etc., but instead focused on saving money and time.

3.1.2 Preparation to crisis

In an interview with Money Program on BBC 2, former CEO Tony Hayward admitted that "BP's contingency plans were inadequate, that BP was not prepared for the Gulf oil disaster and was making it up day today in the early stages". Tony Hayward also admitted that "BP was not prepared to deal with the intense media scrutiny over the Gulf oil disaster and that he felt he was demonized and vilified". Nearly one month after the disaster, the Wall Street Journal reported that "Hayward admitted that the oil giant had not the technology available to stop the leak. He also said in hindsight, it was probably true that BP should have done more to prepare for such an emergency"¹⁸.

¹⁶Ingersoll, Christina, Richard M. Locke, and Cate Reavis. "BP and the Deepwater Horizon Disaster of 2010." MIT Sloan School of Management, Case Study (2012).

¹⁷Baker, James, Frank L. Bowman, Glenn Erwin, Slade Gorton, Dennis Hendershot, Nancy Leveson, Sharon Priest, et al. "The report of the BP US refineries independent safety review panel." BP US Refineries Independent Safety Review Panel (2007).

¹⁸<https://www.forbes.com/sites/geoffoftus/2013/03/13/leaders-wannabes/>, accessed on 10.07.2021 at 10:51

3.2 Leadership roles at Response phase to the crisis

3.2.1 Chain of Command

The first reason for the disaster can be highlighted as inexperienced management associated with the Macondo well. Most of the people in the Chain of command were in that position for a very brief period of time before the disaster struck. Fig.1 shows the "Chain of command", which clearly describes that none of the people involved were experienced enough to handle such a disaster. (Ingersoll et al. 2012)

Name	Title	Days/Months in Position
Patrick O'Bryan	VP, Drilling and Completions, Gulf of Mexico	3 months
David Rich	Wells Manager	6 months
David Sims	Drilling Operations Manager	18 days
Robert Kaluza	Well Site Leader	4 days
Greg Walz	Drilling Engineering Team Leader	18 days (took David Sims's previous position)

Figure 1: Deepwater Horizon Chain of Command¹⁹

Therefore, in the BP case, the structure has to do with the assignment of responsibilities, the formal information flows, and the coordination of efforts to achieve the established objectives which in this case failed because of the low performance of the management team due to ambiguous procedures on security issues.

In fact, BP didn't manage to have the right team, not only with the right tools in security but also with low experience in this topic for important decision-making. Based on court testimonies, many of BP's decision-makers for the Macondo project did not have enough experience and they were in their positions for a short time²⁸. Therefore, it was a risk to have them in the team because many of the decisions that they made played a role in the downing of the oil rig.

Martinez states that the structure of the organization can positively impact an oil company if safety is a personal value that accompanies people at all times, 24 hours a day, seven days a week (24/7)²⁹. Therefore, the leader is the one who must build an emotional bonding with the employees, both in his personal life and with the internal motivator, so that it will lead them to think safely. That is why it is vital for managers to understand that personal and cultural change is a medium and long-term process that requires planning, resources, perseverance, patience, and the commitment of all factors within the organizational culture³⁰. Something that BP's managers apparently didn't understand very well and that's why the tragedy happened in 2010. Apparently, the leader in BP didn't form workgroups with similar skills in order to offer a much more productive performance.

¹⁹Ingersoll, Christina, Richard M. Locke, and Cate Reavis. "BP and the Deepwater Horizon Disaster of 2010." MIT Sloan School of Management, Case Study (2012).

3.2.2 The role of CEO

After the oil platform exploded in the Gulf of Mexico on April 22, the top leadership took 4 days to identify that the well is leaking. With no empathy, the investigation company made wrong assumptions about the leaking oil quantity. They first estimated that 1000 barrels are leaking every day, revised to 5000 after that. However, by June end many scientists claim that the actual number was 60,000 barrels daily (de Wolf 2013).

Hayward appeared in the media with a message that, according to experts, had little solidarity towards the victims of the disaster, and was far away from stating any future steps the company would take regarding the disaster. He denied the severity of the accident and stated "its environmental impact would likely be very very modest and it is relatively tiny in comparison with the big size of the ocean." Definitely, the spokesman, Tom Hayward, could not reflect empathy with those affected, the lack of confidence in him and in his actions made BP the villains of history. His most remembered phrase was recorded on television during an interview where he states: "No one wants this to end more than I do; I want my life back!".²⁰ This poor communication management reflected the responsible leader's lack of vision and commitment to overcome the crisis. In fact, the lack of leadership and communication skills of Hayward ended up distancing BP from the public, media, and the government. For his lack of communication skills, Robert Dudley replaced Hayward as CEO. (de Wolf 2013).

Another criticism comes to BP when in June 2010, it offers to repair the major damage caused by offering compensation to companies and individuals affected by the accident. The company is criticized for spending more than 1 million dollars on advertisement instead of acting quickly and addressing the victims urgently.²¹

BP's transparency and honesty related to the accident were also widely questioned. BP publishes false images which were mostly photoshopped on its web. BP also announced that they were "making efforts" to prevent the oil spill in the Gulf by showing these false photoshopped images on its websites, in fact, any search related to oil disaster firstly redirects users to the BP website which states all these efforts. Another action made by BP was the rewards offered to fishermen "if they signed a waiver promising not to sue the company". All of these acts demonstrate the company's lack of leadership on issues of honesty, transparency, credibility, and commitment to the community and also with its shareholders. In fact, one of the consequences after the disaster on June 25 was the decrease of the stock price that dropped considerably to its lowest level of \$ 22.0226 .

²⁰<https://www.businessinsider.com/bp-ceo-tony-hayward-apologizes-for-saying-id-like-my-life-back-2010-6?IR=T>, accessed on 10.07.2021 at 11:27

²¹Ingersoll, Christina, Richard M. Locke, and Cate Reavis. "BP and the Deepwater Horizon Disaster of 2010." MIT Sloan School of Management, Case Study (2012).

3.2.3 Communication failure within the Organization

Communications within BP are managed in 5 stages (Ingersoll et al. 2012). Setting objectives, Planning, Deciding, Realization, Check & Control are the 5 stages respectively. Therefore, it is clear that communication of BP not only fail in setting its objectives but also in all the procedures, which should be based more on caution rather than expediency and cost-reduction.

The Communication failure begins from the first stage itself. In the First stage of setting objectives, objectives were cost-cutting, saving time, etc., which were traded over safety procedures. Also, there was a clear lack of safety objectives from the beginning onward. In the second step of planning, the procedure of planning was mostly developed by inexperienced people who were promoted/joined the position only a few days back or were there only for a short time. The third part of the communication chain was deciding, where BP leadership chooses options that are cheap and save money for the firm over the required ones.

The fourth step of the communication chain was a realization. Disable of alarms for the level of gas, Casing of well with the most economical option instead of the required one, instead of using 21 centralizers which are recommended for a project of this scale, only 6 were used. These steps clearly state that the realization plan in the communication chain was a complete failure. Lastly, in the fifth step which is check and control, BP managers decided not to run many tests. To add, despite all the warnings of potential channeling, BP chooses not to test the integrity of the cement bond log.

One example of BP's miscommunication is that the firm ignored warnings from contractors and employees and chose the cheapest drilling options. In addition, BP's risk policy stated that the alarm had been set to activate with human intervention and that the crew had to wait for an order from a high-level manager in the event of an emergency. The violence of this incident caused the bosses to be cut off from their subordinates and the devices were not activated (Melitz 2003).

3.3 Leadership and post crises era

In this phase, the company's top leadership tries to repair their image with the main motive to remove negativity associated with the company's reputation. while handling the accident, BP published a report²² about the aftermath of the accident. BP claimed that "its engineers, contractor Halliburton and rig operator Transocean share the blame for the complex and interlinked series of mechanical failures, human judgments, engineering design, operational implementation and team interface that caused the accident. Its former CEO said that there was a lack of rigor and quality of oversight of contractor, that a series of complex events, rather than a single mistake or failure led to the accident, and that it would be surprising if the industry does not look afresh at the relationship with contractors" (de Wolf 2013). However, experts consider this report

²²<https://www.sec.gov/Archives/edgar/data/313807/000119312510216268/dex993.htm>, accessed on 11.07.2021 at 22:16

as a blame game and strictly criticized it.

BP published another report after 1 year of the accident. It was very interesting that the sustainability report didn't discuss anything about the accident, how much that accident caused to the environment. Also, the economical impacts and peoples life was not discussed. In fact, BP stated that²³ "We have not included any emissions from the Deepwater Horizon incident and the response effort due to our reluctance to report data that have such a high degree of uncertainty". They also stated that²⁴ "Although there are several third-party estimates of the flow rate or total volume of oil spilled from the Deepwater Horizon incident, we believe that no accurate determination can be made or reported until further information is collected and the analysis, such as the condition of the blowout preventer, is completed." This report again was widely criticized. Many organizations describe this report as a greenwashing attempt by BP (de Wolf 2013).

4 Recommendations

Based on research and reading various reports, it's necessary to highlight few important findings in the form of recommendations. They are:

BP executives should have shown greater concern about the importance of safety procedures. Therefore, a leader should encourage the safety of its employees, staff, partners, climate, and society. The behavior of leaders must show commitment, transparency, responsibility, and vision.

The structure of the company must reflect participative leadership which should be based on pillars of listening and collaboration. the leader must listen to their collaborators, team members, and partners. This will also make a transparent communication environment which in=fact makes employees more responsible.

With the example of Tony Hayward, the CEO of the company, absence from the ground and its consequences, one must understand the symbolic value of being physically present on the ground, as quickly as possible. In this way, an authentic message of real concern is transmitted to the stakeholder community, society, and the media.

In the case of BP, CEO Tony Hayward didn't have good communication skills, the company lie showing false pictures on its Web, focus on advertisements, and didn't show the real actions about what the firm was actually doing. Therefore, transparency and honesty should be on the top list of leadership. Without them, the loses its image, trust, brand, stakeholders, and share values respectively.

²³https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/sustainability/archive/archived-reports-and-translations/2010/bp_sustainability_review2010.pdf, accessed on 11.07.2021 at 23:12

²⁴<https://www.fastcompany.com/1742432/bp-greenwashes-post-deepwater-horizon-csr-report>, accessed on 11.07.2021 at 23:21

5 Conclusion

Crisis management and leadership are vital in a company. As in the case of BP, there were human lives involved. Eleven people died in the accident and ecological damage was caused. But, the leaders were busy hiding the exact transparent information from the public.

It's a well-known fact that accidents are inevitable in their work area. Oil Companies, Media & the Public, all are very well aware of this fact. But it's surprising that for many companies, whether old or new, the natural reaction is to hide information. But in the end, this action causes greater damage. That's why transparency, honesty, commitment, competence, good communication skills & credibility are crucial parts of crisis situations.

In the emergency and crisis phase, With the example of Tony Hayward, the CEO of the company, absence from the ground and its consequences, one must understand the symbolic value of being physically present on the ground, as quickly as possible.

Stakeholders also want to feel informed when a crisis occurs. When the stakeholder community is not aware of the ongoing measures, this can impact the image and the stock of the company.

Finally, it can be concluded that a crisis requires the immediate attention of those within the organization as well as it caught the attention of the general public. As a general rule, in any type of crisis, it is a priority to give attention to those people who are affected, share the information honestly and show the measures transparently to everyone which can definitely help normalcy as soon as possible.

References

Bernstein 2004

BERNSTEIN, Jonathan: The 10 steps of crisis communications. In: *Crisis Response, prevention, planning and, Training* 106 (2004)

Bundy et al. 2017

BUNDY, Jonathan; PFARRER, Michael D.; SHORT, Cole E.; COOMBS, W T.: Crises and crisis management: Integration, interpretation, and research development. In: *Journal of management* 43 (2017), Nr. 6, pages 1661–1692

Heller 2012

HELLER, Nathan A.: Leadership in crisis: An exploration of the British Petroleum Case. In: *International Journal of Business and Social Science* 3 (2012), Nr. 18

Ingersoll et al. 2012

INGERSOLL, Christina; LOCKE, Richard M.; REAVIS, Cate: BP and the Deepwater Horizon Disaster of 2010. In: *MIT Sloan School of Management, Case Study* (2012)

James & Wooten 2011

JAMES, Erika H.; WOOTEN, Lynn P.: Crisis leadership and why it matters. In: *The European Financial Review* 61 (2011)

Melitz 2003

MELITZ, Marc J.: The impact of trade on intra-industry reallocations and aggregate industry productivity. In: *econometrica* 71 (2003), Nr. 6, pages 1695–1725

Pranesh et al. 2017

PRANESH, Venkat; PALANICHAMY, Karthik; SAIDAT, Owodunni; PETER, Nyasige: Lack of dynamic leadership skills and human failure contribution analysis to manage risk in deep water horizon oil platform. In: *Safety science* 92 (2017), pages 85–93

Schoenberg 2005

SCHOENBERG, Allan: Do crisis plans matter? A new perspective on leading during a crisis. In: *Public relations quarterly* 50 (2005), Nr. 1, pages 2

de Wolf 2013

WOLF, Daniel de: Crisis Management: Lessons Learnt from BP Deepwater Horizon Spill Oil. In: *Business Management and Strategy* 4 (2013), Nr. 1, pages 69–90