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**Crisis Management and Ways to Deal with Changes
Resulting from a Crisis**

by the practical example of Magna Presstec GmbH

Master's Thesis

to achieve the university degree of
Diplom-Ingenieurin/Diplom-Ingenieur

Master's degree programme:
Production Science and Management

submitted to

Graz University of Technology

Supervisor

Institute of Innovation and Industrial Management
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Graz, 30.06.2021

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Acknowledgement

First and foremost, I would like to thank my supervisor for the master's thesis, Dipl.-Ing. Dr.techn. Matthias Wolf, for his support. He contributed significantly to this work by means of discussions and the materials provided as well as through feedback.

Secondly, I would like to thank my partner company Magna Presstec, which paved the way for me to write this master thesis through its cooperation during my studies.

Additionally, special thanks go to Roland Prettner MBA and Dipl.-Ing. Thomas Wurzwaller from Magna Presstec, who also supported me greatly during the process. Even though they both are very engaged in their daily job routine, I could always count on their assistance.

Finally, I would also like to dedicate special thanks to my family and especially my girlfriend, who I could always rely on for good advice and an open ear. And I would also like to thank all the people who supported me in writing this piece.

Thank you.

Gerald Perhofer

Abstract

This master thesis deals with the topic of crisis management. Increasing uncertainties for companies due to higher price volatility, unpredictable impact of new technologies, complex trading patterns and a rising number of disruptive event, lead to an increasing number of crises. As a crisis is characterized by unpredictability, Magna Presstec is facing problems with managing such situations. It is therefore necessary for Magna Presstec to follow a strategic approach to crisis management and to have a crisis management plan prepared.

However, the overall objective of this thesis is to explain and define the scientific basics on the topic of crisis management, to bundle the information in a crisis management plan for Magna Presstec and to work out ways of dealing with changes resulting from a crisis and transforming them into opportunities. Furthermore the derived research question of what the specific requirements are for crisis management in the automotive supply industry will be answered. In order to achieve the master thesis and company objectives and answer the research question, existing knowledge from the literature is combined and supplemented with the industrial requirements and findings derived from a qualitative survey regarding current crisis management approaches.

As a result, a crisis management concept has been developed consisting of a strategic crisis management model and an operative crisis management plan. Within this concept, strategic and operational measures have been defined which are intended to increase the robustness and agility of a company. By these two factors the resilience of a company increases during times of crises. Additionally, recommendations for further actions and the implementation of the concept have been defined. Lastly, possible future research fields in the area of crisis management are identified, which might address the development of crisis management concepts for the automotive industry, with a focus on the detailed implementation of monitoring approaches in a crisis management concept.

Kurzfassung

Diese Masterarbeit beschäftigt sich mit dem Thema Krisenmanagement. Zunehmende Unsicherheiten für Unternehmen durch höhere Preisvolatilität, unvorhersehbare Auswirkungen neuer Technologien, komplexe Handelsstrukturen und eine steigende Anzahl von disruptiven Ereignissen führen zu einer zunehmenden Anzahl von Krisen. Da eine Krise durch Unvorhersehbarkeit gekennzeichnet ist, steht Magna Presstec vor Problemen bei der Bewältigung solcher Situationen. Daher ist es für Magna Presstec notwendig, einen strategischen Ansatz für das Krisenmanagement zu verfolgen und einen Krisenmanagementplan vorzubereiten.

Das übergeordnete Ziel dieser Arbeit ist es, die wissenschaftlichen Grundlagen zum Thema Krisenmanagement zu erläutern und zu definieren, die Informationen in einem Krisenmanagementplan für Magna Presstec zu bündeln und Wege zu erarbeiten, wie man mit den aus einer Krise resultierenden Veränderungen umgehen und diese in Chancen umwandeln kann. Darüber hinaus soll die abgeleitete Forschungsfrage beantwortet werden, was die spezifischen Anforderungen an das Krisenmanagement in der Automobilzulieferindustrie sind. Um die Ziele der Masterarbeit und des Unternehmens zu erreichen und die Forschungsfrage zu beantworten, werden vorhandene Erkenntnisse aus der Literatur mit den industriellen Anforderungen und Erkenntnissen abgeleitet aus einer qualitativen Umfrage zu aktuellen Krisenmanagementansätzen kombiniert und ergänzt.

Als Ergebnis wurde ein Krisenmanagementkonzept entwickelt, das aus einem strategischen Krisenmanagementmodell und einem operativen Krisenmanagementplan besteht. Innerhalb dieses Konzeptes wurden strategische und operative Maßnahmen definiert, die die Robustheit und Agilität eines Unternehmens erhöhen sollen. Durch diese beiden Faktoren steigert sich die Resilienz eines Unternehmens in Krisenzeiten. Zusätzlich wurden Empfehlungen für das weitere Vorgehen und die Umsetzung des Konzepts definiert. Abschließend wurden mögliche zukünftige Forschungsfelder im Bereich Krisenmanagements identifiziert, die sich mit der Entwicklung von Krisenmanagementkonzepten für die Automobilindustrie befassen könnten, mit dem Fokus auf die detaillierte Implementierung von Monitoring-Ansätzen in ein Krisenmanagementkonzept.

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List of Abbreviations

BCG	Boston Consulting Group
CCP	Crisis Communication Plan
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CHRO	Chief Human Resource Officer
CLO	Chief Logistics Officer
CMP	Crisis Management Plan
CMT	Crisis Management Team
COO	Chief Operations Officer
COVID	Corona Virus Disease
CPO	Chief Purchasing Officer
CQO	Chief Quality Officer
CTO	Chief Technology Officer
IATF	International Automotive Task Force
IRT	Image Restoration Theory
MAG	Metal Active Gas
MIG	Metal Inert Gas
OECD	Organization for Economic Co-operation and Development
OEM	Original Equipment Manufacturer
RBSC	Roland Berger Strategy Consultant
SCCT	Situational Crisis Communication Theory
VUCA	Volatility Uncertainty Complexity Ambiguity

1 Introduction

In this chapter the initial situation, the challenges as well as the company and thesis objectives will be elaborated in more detail. Furthermore, the company will be introduced.

1.1 Initial Situation

The significant change of the automotive industry is evident. Electronic vehicles are developing due to technological innovation namely the digitalization and interconnectivity, as well as the need for more sustainable mobility.¹ A rise of 20.4 million new registrations of electric and plug-in-hybrid vehicles worldwide from 10.3 million in 2020 to 30.7 million in 2025 is predicted.² Simultaneously, traffic and transportation undergo a shift towards autonomous driving, which might severely influence everyday life.³

Furthermore the COVID-19 pandemic seriously impacts the worldwide economic systems, resulting in a global crisis with numerous repercussions yet to come. This also triggered a public discussion on how the world will change as a result. Especially mobility has fuelled the pandemic crisis, since on the one hand international airports and on the other hand public transportation increased the rapid dispersion of the virus. In addition, the constrain of mobility has been at the centre of the legal ordinances, commonly referred to as the "lockdown" and mobility is finally positioned as a key element of many political decisions to stimulate economies as well as an indicator for society returning to a "new normal". Moreover the change processes in the automotive industry are being accelerated and intensified by this crisis, and the impact on this branch increases even more.⁴ Besides that, the unemployment rate in the European Union reached 6.6% in April 2020, representing a rise of 0.2% compared to the rate in March 2020.⁵ The COVID-19 crisis also impinged the overall consumption behaviour, which decreased by 35% and resulted in a shutdown of several industries around the globe, including the automotive industry.⁶ Most OEMs even stopped their production completely from the 20th of March until the beginning of May.⁷

¹ Cf. Nationale Plattform Zukunft der Mobilität (2020), p. 6, online source [15.11.2020].

² Cf. Kords (2019), online source [15.11.2020].

³ Cf. Kaltenhäuser et al. (2020), p. 882, online source [15.11.2020].

⁴ Cf. Wang/Wells (2020), p.1 ff., online source [15.11.2020].

⁵ Cf. Eurostat (2020), online source [16.11.2020].

⁶ Cf. Baker et al. (2020), p.10, online source [16.11.2020].

⁷ Cf. Madhok (2020), online source [05.12.2020]

Increasing uncertainty for companies in the “VUCA”-world due to higher price volatility, unpredictable impact of new technologies, complex trade patterns and rising number of disruptive events,⁸ leading to increasing number of crises.⁹

As the COVID-19 crisis was characterized by uncertainty and unpredictability, managers were confronted with difficult challenges on how to react efficiently and make decisions quickly. Due to these characteristics managers were overwhelmed and mistakes were made in handling these challenges. For example, the leaders waited for all the facts of the crisis to be known before deciding on what to do.¹⁰ Also managers found it rather hard to think out-of-the-box and accept the fact that they should disconnect from existing processes. Additionally companies have underestimated the pandemic risk. COVID-19 has made us understand how difficult it is to take reactive measures while considering different risks and scenarios. Further on problems with forming teams occurred and the importance of communication between departments and employees were not taken into account, which of course influenced the decision process of managers in a negative way.¹¹

As Magna Presstec is an automotive supplier specialized in manufacturing stamping- and Metal Inert Gas (MIG) and Metal Active Gas (MAG) welding components, changes due to technological innovations, environmental needs and especially crises have an impact on this company. For these reasons, it became crucial in these special times to react flexible and fast to external changes. It is therefore necessary for Magna Presstec to have a crisis management plan that can be used in a critical situation, as is the case within many international companies around the world, in order to be able to deal with immediate changes better and transform changes into future opportunities.¹²

1.2 Challenges

The main challenges according to the company are, that Magna Presstec currently does not follow a strategic approach when it comes to crisis management, therefore the management team is forced to react with rather short-termed activities. This might be the reason that the company is focusing on managing the operational business, the day-to-day business and the executives are basically trying to survive while countless important decisions have to be made. During this period of extraordinary strain, the company and its executives are not able to contemplate the potential that such a crisis could bring, which leads to the fact that the company is confronted with money losses, because they

⁸ Cf. Kremsmayr (2017), p. 43 ff.

⁹ Cf. Hungermann (2018), online source [18.06.2021].

¹⁰ Cf. D’Auria/De Smet (2020), online source [17.11.2020].

¹¹ Cf. PwC (2020), online source [17.11.2020].

¹² Cf. Bommel et al. (2015), p. 3 ff., online source [18.06.2021].

do not use their full potential. However, if Magna Presstec had a plan including the most important steps to be taken in the event of a crisis, the company would be able to manage the crisis more efficiently and quickly, and further be able to deal immediately with the changes and opportunities that might arise from a crisis.¹³

1.3 Objectives

Within this chapter two kinds of objectives are integrated. First of all, the two company objectives are stated, which demonstrate the company's needs and serve as basis for the master thesis objectives. Secondly, the objectives of the master thesis are specified.

1.3.1 Company Objectives

Drawn from the challenges, the overall company objective is to follow a strategic approach and thereby increase the efficiency when it comes to crisis management. Therefore, a comprehensive crisis management plan including clearly defined steps for Magna Presstec should be developed. In the aftermath, ways of how to deal with changes resulting from a crisis as well as their transfer into opportunities should be identified. From this the following subgoals can be derived:

1. Development of a crisis management plan including clearly defined steps for Magna Presstec
2. Dealing with changes resulting from a crisis and their transformation into opportunities

1.3.2 Thesis Objectives

The overall master thesis objective is to explain and define the scientific basics of the topic crisis management, bundle the information in a crisis management plan for Magna Presstec and elaborate ways how to handle changes and transfer them into opportunities. From this, the following three subgoals can be defined, which are of interest to both the company and the scientific field.

1. Summarize the scientific base and identify current developments of the topic crisis management
2. Execute an internal analysis from the Magna Presstec perspective and an external analysis of selected experts to gather insights from current crisis management approaches
3. Bundle the information in a crisis management plan for Magna Presstec and derive specific measures of action on how to deal with changes and how to transfer them into opportunities

¹³ Cf. Sample 1, individual interview 22.10.2020.

1.4 Magna Presstec

In general the Magna Presstec Ltd., with its head office in Weiz (Austria), is a subsidiary of Magna International Inc., a company that has grown to the third-largest global automotive supplier over the past decades.¹⁴ In total the Magna Presstec employs around 1,200 people who are located in four different plants spread over three locations, which can be seen in the graphics below.¹⁵



Figure 1: Presstec - Overview, Source: Magna Presstec (2020), p. 34.

¹⁴ Cf. Automotive News (2019), online source [22.11.2020].

¹⁵ Cf. Magna Presstec (2020), p. 34, [unpublished source].

1.4.1 Strategy and Objectives

„We successfully manufacture automotive future – with passion and personal responsibility”, this slogan is representing the mission statement of Magna Presstec. This mission is coordinated with the company's principles, which represent a three-legged chair that stands for the integrative cooperation between customer, employee and investor. Based on this, the main company goals can be derived, namely the achievement of no complaints from customers and furthermore the avoidance of all employee accidents, leading then to a 100% efficiency towards the investor. These objectives are implemented as part of a continuous improvement process¹⁶

1.4.2 Customer Spectrum

Among the end customers of Magna Presstec are the most important OEMs in the automotive industry, such as the Volkswagen Group, BMW, Audi and Daimler, to mention just a couple of them. End customers are also reached through other tier-on-suppliers, such as Magna Steyr, Magna Fuel Systems and Magna Heavy Stamping, that Magna Presstec is supplying. The following figure shows the detailed end customer breakdown of the basic sales in 2019.¹⁷

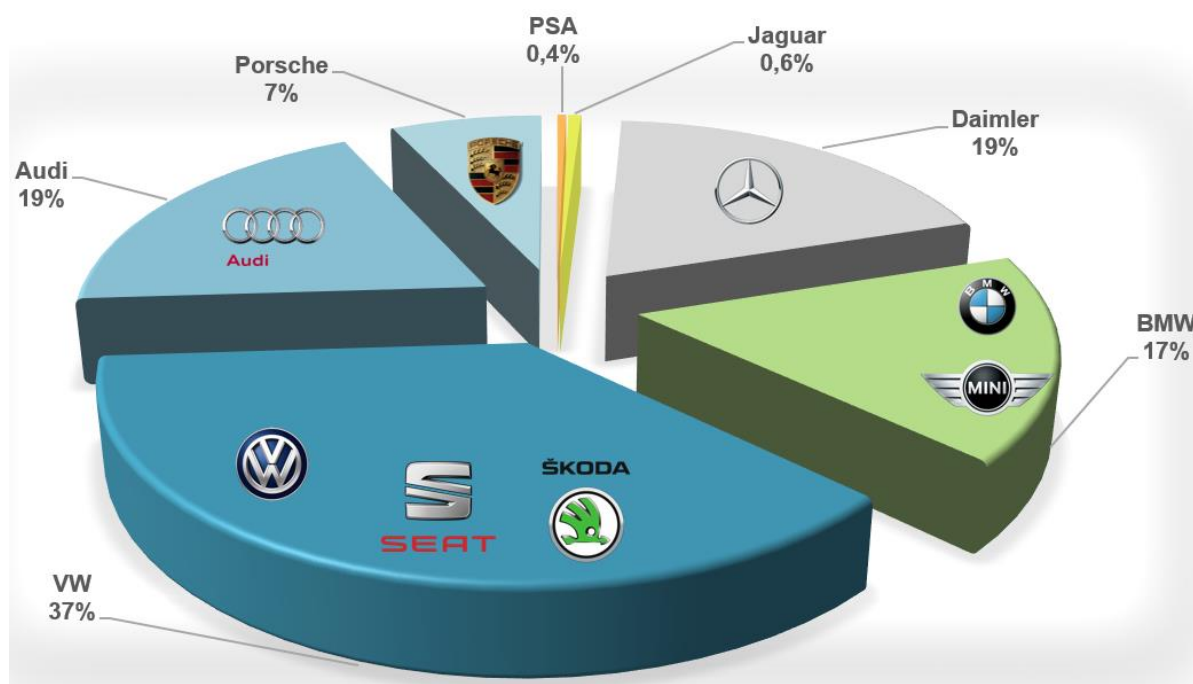


Figure 2: Presstec – Customer Breakdown 2019, Source: Magna Presstec (2020), p. 43.

¹⁶ Cf. Magna Presstec (2020), p. 36 ff., [unpublished source].

¹⁷ Cf. Magna Presstec (2020), p. 43, [unpublished source].

1.4.3 Product Portfolio

The diverse product portfolio of Magna Presstec in the manufacturing of stamped and welded parts, mentioned in the introduction, as well as assembling aluminium parts using riveting and clinching, offers a variety of applications in the automotive industry. Here the company is following a product strategy, in which the products are spread over the 4 plants, which allows each of those to focus on their core competencies. For example the Plant 1, located in Weiz, is focusing on Body-In-White aluminium and steel components, where else Plant 2 produces mostly aluminium chassis parts. In the two other locations the focus is on aluminium assemblies in Bratislava, and on Steel chassis components in Lebring.¹⁸ In order to get a better overview of these facts, the following figure is used.

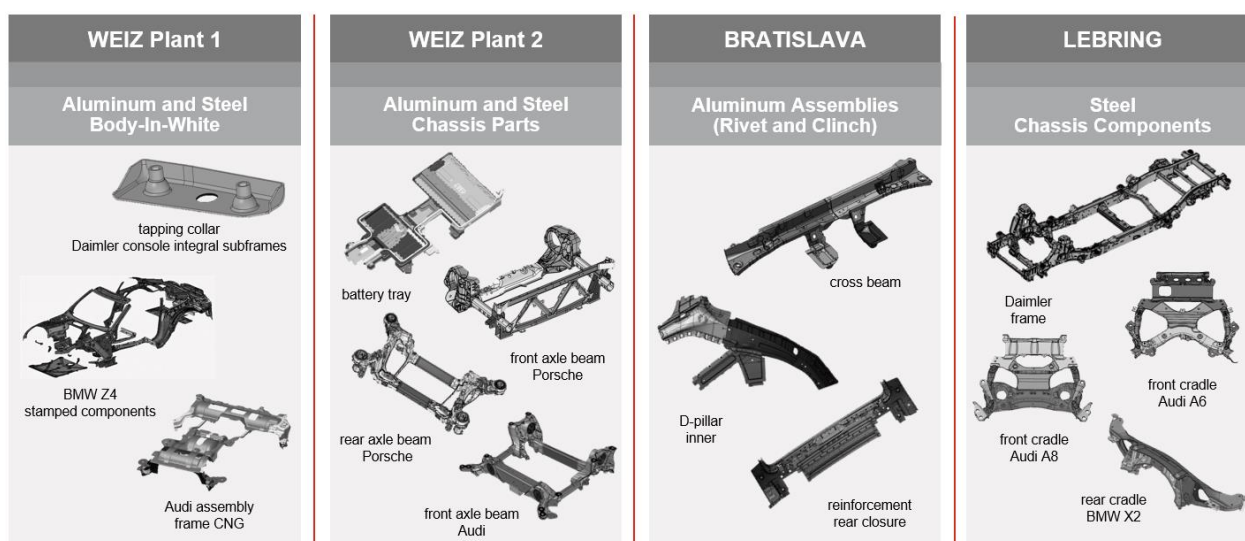


Figure 3: Presstec - Product Strategy, Source: Magna Presstec (2020), p. 40.

¹⁸ Cf. Magna Presstec (2020), p. 40, [unpublished source].

2 Basic Literature – Crisis Management

The following chapters describe the scientific fundamentals of the topic Crisis Management.

2.1 Definition of the Term Crisis and Crisis Management

Since this master thesis is about “crisis management and ways to deal with changes resulting from a crisis”, the term Crisis Management needs to be explained in more detail.

The term crisis is currently of high demand. It is used to describe health-related hazards (pandemics and food safety)¹⁹, problems of personal nature (e.g. midlife crisis), threatening developments in various systems (economic crisis, government crisis), regions (crisis region), epochs (crisis of the present age) and philosophical problems (crisis of meaning). Furthermore a crisis can be defined as an unexpected event which changes an equilibrium or a habit and where the outcome is unpredictable and might result in a new, more stable or less stable equilibrium.²⁰

There are various other interpretations of the meaning of the term crisis. For example, in one of the oldest explanations, it was Hermann (1963), who characterized crisis as an occurrence that involves surprise, a threat and a short-term response time. In the Fink et al. (1971) definition, a crisis is a threat to the system as a whole and Nystrom and Starbuck’s (1984) interpreted the term as a threat to the organization’s own survival. Among western scholars the combination of the two Chinese Mandarin characters can be interpreted as “dangerous opportunity”. One character means danger and the other means opportunity.²¹



Figure 4: Interpretation of the Two Chinese Mandarin Characters, Source: own representation.

Its origin however, finds the term crisis in ancient Greek (κρίση) and means decision or turning point.²² In this context, the term describes the interruption of a continuous development and the related peak or turning point, which at the same time signifies a

¹⁹ Cf. OECD (2018), p. 26, online source [05.01.2021].

²⁰ Cf. Merten (2014), p. 156.

²¹ Cf. Alas/Gao (2012), p. 1 ff.

²² Cf. Bibliographisches Institut GmbH (2020), online source [02.01.2021].

decision-making situation with ambivalent development possibilities.²³ A crisis is a time of high uncertainty where the challenge is to make decisions quickly and accurately.²⁴

Various definitions are offered with regard to the topic of a company crisis. One definition of a company crisis according to Krystek, is that a company is facing an unscheduled and undesirable event of limited duration and influenceability, including an uncertain outcome. This situation is capable of posing a significant and lasting threat to the company's continued existence. The fact that certain objectives are not achieved or are threatened is therefore equivalent to a sustained damage to the company's reputation or a threat to its existence.²⁵ No organizations is entirely protected against crises and it might occur at any time and without warning. Or as the so-called Murphy factor describes it: Everything that can go wrong will go wrong.²⁶

At this point a company crisis must be clearly distinguished from terms similar to crises, e.g. conflicts, catastrophes or risks, which sometimes overlap in terminology, but cannot correspond to a company crisis.²⁷

The handling of different kinds of crises can be described by the term "Crisis Management" and has been used in the literature since the 1970's. Similar to the term crisis, it cannot be clearly defined. The term represents a rhetorical product of the words "crisis" and "management" with assigned content ranging from coping with crises, to seeing all kind of management activities, as crisis management.²⁸

Within an organization, crisis management is not necessarily just about planning and researching for all eventualities, but rather about developing the skills that enable a company to make decisions in a crisis situation. Putting oneself in particularly challenging situations and conducting exercises with the team is a key success factor for upcoming crisis situations. Effective crisis management can be achieved by taking decisive action to solve one or a series of problems that have an impact on the organization.²⁹

Crisis management implies being able to deal with adversity, reducing of the impact of the crisis and making the management process easier within these chaotic circumstances in order to avoid insolvency or illiquidity. However, the earlier active crisis management

²³ Cf. Gabele (1981), p. 151, quoted from: Krystek (1987), p. 3.

²⁴ Cf. Clark/Harman (2004), p. 41 f.

²⁵ Cf. Rösen (2017), p. 43.

²⁶ Cf. Lando (2014), p. 6.

²⁷ Cf. Krystek (1987), p. 7 ff.

²⁸ Cf. Cezanne (1999), p. 21.

²⁹ Cf. Clark/Harman (2004), p. 40 ff.

is initiated, the greater is the chance to succeed,³⁰ or as Ramsauer formulated it: "Early detect, fast react" is the recipe in which time plays a major role.³¹

2.2 Differentiation to the Term Risk Management

The intensified debate in theory and practice about threatening situations in companies leads unavoidably to a variety of terms. It is therefore necessary to distinguish crisis management from the related field of risk management. In contrast to crisis management risk management relates to predictable risks and is often seen as no real management task. Therefore, it is handed over to departments that are specialized in this field.³²

The task of risk management is to classify predictable risks. Identified risks are quantified and evaluated and therefore lead to precautionary measures, for example through loss prevention or loss compensation.³³

According to Holmes, risks can be classified into five groups, namely the strategic risk, the business/financial risk, the program and project risk, the operational risk and the technological risk. In the following, these categories are explained in more detail:³⁴

Strategic risks might influence the strategic direction and survival of the organization. While strategic management is focusing on "doing the right things", strategic risks deal with "doing the wrong things."

Business/financial risks affect companies in terms of their overall financial sustainability. Among this category are risks caused by the market in which the company is active, for example credit risks or liquidity risks.

Program and project risks are often closely related to strategic risks. Here the risk of a large transformational project is described.

A broad spectrum of risks, which may occur due to all kind of business operations failures, is the **operational risk**. While the operational management can be described as "doing the things right", "doing the things wrong" is relating to the category of operational risk.

The last category, **technological risks**, represent the risk of bringing new technologies or new products to the market.

However, to provide stability to an organization and create a resilient corporate governance framework, both crisis management and risk management are crucial. Crisis management refers to dealing with unforeseen events that may result in harm to an

³⁰ Cf. Schawel/Billing (2018), p. 191.

³¹ Cf. Köttritsch (2017), online source [03.05.2021].

³² Cf. Müller (1982), p. 34 ff.

³³ Cf. Töpfer (1999), p. 5.

³⁴ Cf. Holmes (2002), p. 6 f.

organization and its stakeholders, whereas risk management involves the process of identifying how threats would potentially influence an organization and how the risks may be managed in order to mitigate the harm to the organization.³⁵

The increasing uncertainty for companies in recent years due to various developments, such as increasing volatility in the markets (more volatile raw material prices), unpredictable effects of new technologies (digitalization), more complex trade structures (globalization) and the increasing number of disruptive events have led to various effects on operations. For example, a company's internal production disruption such as machine breakdowns, quality problems or the loss of individual key personnel in production, has a significant impact on the production performance of a company, or supply chain disruptions occur due to external disruptions such as supply chain breakdowns caused by external influences (e.g. natural disasters). Thereby, a systematic assessment process can be used to identify and evaluate these uncertainties and subsequently derive risks as well as opportunities, which are for example:³⁶

- Disagreements between stakeholders leading to inefficiencies in the process of achieving company goals
- Incorrect strategic alignment of the company resulting in significant competitive disadvantages
- Reputation loss due to quality problems
- Liquidity problems due to an inappropriate ratio of equity and debt capital
- Unexpectedly high increases in demand
- New business models and increased efficiency due to digital technologies
- Economic advantages due to trade agreements or government subsidies

According to Stracke, increasing globalization and the exploitation of new markets, as well as legal requirements relating to emissions to achieve CO2 targets and the growing integration of electronic vehicle systems, represent the current challenges the automotive industry is facing.³⁷

2.3 Types of Crises

The term “crisis type” illustrates the manifestation of the concrete target threat.³⁸ In the literature a common distinction is made between a success crisis, also referred to as slow, creeping or latent crisis, and a sudden company crisis. A success crisis occurs rather slowly and the potential of threat is increasing over time until the company faces

³⁵ Cf. Terms compared (2019), online source [04.01.2021].

³⁶ Cf. Kremsmayr (2017), p. 43 ff.

³⁷ Cf. Pointner (2017), p. 234.

³⁸ Cf. Hess/Fechner (1987), p. 18.

existential difficulties. A sudden company crisis occurs abruptly and is in most of the cases not predicable. Generally, this type of crisis also causes financial damage, but this does not have to be existentially threatening.³⁹ Examples for a sudden crisis are misfortunes, accidents, crimes, criminal offences, or pandemics, a creeping crisis involves increasing gasoline prices, food crisis and pollution. The following figure shows the course of a sudden crisis, which gains momentum and then drops after a sharp peak, and a creeping crisis, which is latent and rises slowly and often becomes a major threat.⁴⁰

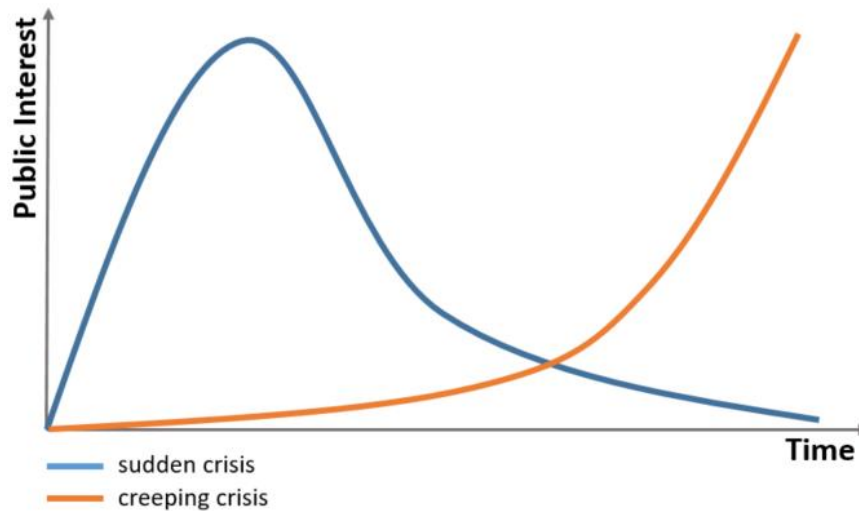


Figure 5: Differentiation of Crisis Types, Source: based on Töpfer (1999), p. 275.

There are several other approaches that characterize the types of crises, for example, a distinction between crises that come from external sources and those that come from internal sources. In most cases, however, the result is a combination of both sources. Furthermore Coombs divides a crisis into ten crisis types:⁴¹

1. *“Natural disaster: When an organisation is damaged as a result of “acts of God”*
2. *Workplace violence*
3. *Rumours: When false or misleading information is circulated about a company or its products*
4. *Malevolence: When an outside actor employs extreme tactics to attack the organisation*
5. *Challenges: When the organisation is confronted by discontented stakeholder*
6. *Technical-error accidents: When technology that is utilised fails and causes an industrial accident*

³⁹ Cf. Thießen ed. (2014), p. 244.

⁴⁰ Cf. Fiederer/Ternès (2017), p. 20 f.

⁴¹ Cf. Bloch (2013), p. 32 ff.

7. *Technical-error product harm: When technology that is utilised fails and results in a defective or harmful product*
8. *Human-error product harm: When human error results in a defect or harmful product*
9. *Human-error accidents: When human error causes accidents*
10. *Organizational misdeeds: When the management purposefully takes actions which place stakeholders at risk or violates the law*⁴²

Besides these types mentioned above, others which are relevant for companies too, can be defined. A crisis type occurs, for example, when a company behaves incorrectly if problems arise that are of public interest. If actions are taken which do not take into account the interests of the public, this can lead to ecological, economic and financial consequences for the company. The death of one or more managers of a company, which threatens the ability of a company to operate, is another type of crisis. This involves the question of whether there is someone who is capable of substituting the person who led the company. One type of crisis relevant to the automotive industry can be caused by a malfunction of a product at a customer site. This kind of failure can lead to the recall of cars already sold and can cause great financial and reputational damage to the company.⁴³ Another crisis type relevant to the automotive industry is supply chain disruption. Due to the high level of interdependence between companies within the global automotive supply chain, this crisis type may arise as a consequence of other crisis events (e.g. natural disasters, environmental or technological accidents, or man-made crises) within the supply chain.⁴⁴

⁴² Bloch (2013), p. 37 f.

⁴³ Cf. Lando (2014), p. 8.

⁴⁴ Cf. Burns/Marx (2014), p. 108.

2.4 Resilience, Robustness and Agility

After having defined the types of crises, this chapter will focus on resilience, robustness and agility, since these terms are often used in the literature in the context of managing the uncertainties that a crisis can bring.

But first, the so-called VUCA world should be mentioned and briefly explained at this point, as it describes difficult framework conditions for corporate management. The abbreviation VUCA stands for “Volatility”, “Uncertainty”, “Complexity” and “Ambiguity” and has its roots in the military sector.⁴⁵

In the following the four terms will be explained in more detail:⁴⁶

- **Volatility** refers to the degree of fluctuation over time. Volatility can be defined as the deviation of a value from its reference value within a certain period of time. Practical examples of this are price fluctuations of global commodity markets and fluctuations of shares within a short period of time. As volatility increases, so does the amount of fluctuation.
- In the VUCA model, the term **uncertainty** is used to define the unpredictability of events. Therefore, the more surprises the scenario has in reserve, the more uncertain it is. It may also be characterized in terms of a lack of ability to adequately assess a situation in order to identify challenges and opportunities.
- A situation or a system can be defined as complex as soon as the same inputs can lead to different outputs. The rule applies that the more variables and dependencies a situation or system has, the higher its **complexity**.
- **Ambiguity** describes the multiple meanings of a situation or information. In this context, the clear evaluation of information cannot be done by rules or processes. For example, by asking two different people to comment on a particular situation, they might have different views of the situation, but both would be equally correct.

After having gained an overview of the main framework for corporate management, the following paragraphs will discuss various definitions of the terms resilience and agility available in the literature.

Agility

The term agility was first mentioned in a 1991 published article by the Iacocca Institute at Lehigh University. The focus of the report lay on how U.S. companies should prepare for the future in order to regain or defend a leading role in manufacturing. When discussing agility, it is possible to differentiate between two streams. The first stream focuses on

⁴⁵ Cf. Lenz (2019), p. 51.

⁴⁶ Cf. Mack/Khare (2016), p. 5 f.

agility practices, while the second stream stresses how agility can influence the outcome of a process, system or organization.⁴⁷

Swafford et al. define agility as “capability to adapt or respond in a speedy manner to a changing marketplace environment”.⁴⁸ In their characterization they point out that while agility and flexibility both have the capability to change, they are nevertheless two different approaches. Flexibility can also be understood as a competence and refers to the inside of the company, while agility can be classified under the term capability, which is directed towards the external context.⁴⁹

Another definition of agility was given by Schurig. In order to respond to changes in an appropriate way, it has become increasingly important for companies to proactively prepare for uncertainties and therefore have the ability to react in a short-term manner. The goal here is to improve the economic situation of a company by taking into account all elements along the supply chain. In contrast to resilience, the focus of agility is not on negative disruptions, which enables the company to perceive and take advantage of opportunities which might result from changes. Figure 6 shows, how the demand curve behaves due to changes in the environment. It has become crucial for manufacturing companies to adjust their production output to the changing demand as fast as possible, and therefore reduce the difference between the actual demand on the market and the company's production output. In the case of an upward trend in the demand curve, this

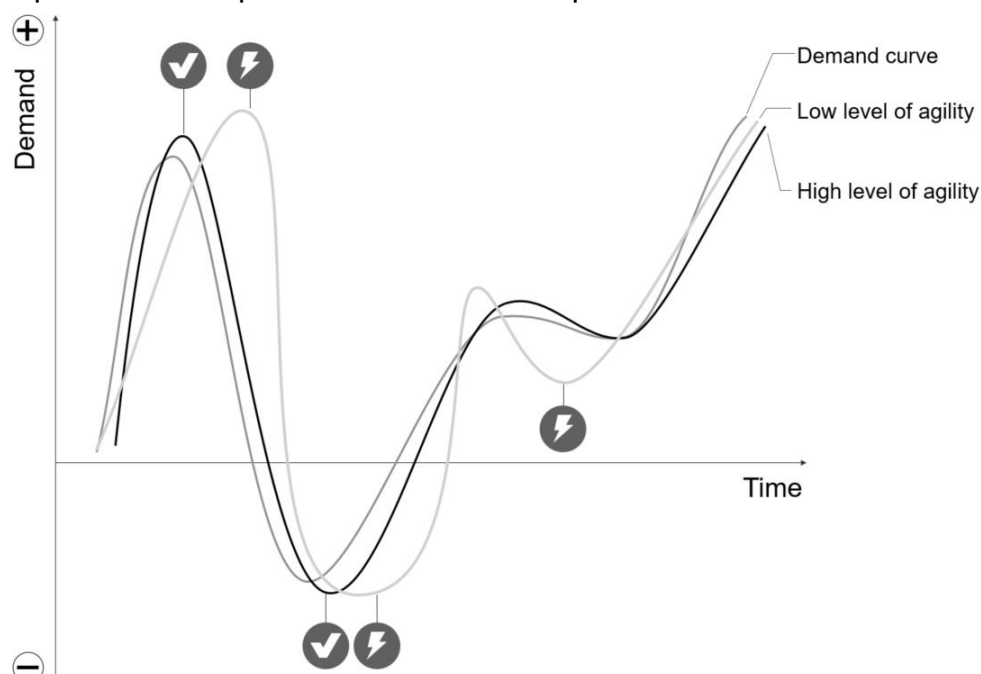


Figure 6: Comparison of Agile and not Agile Companies, Source: Schurig (2017), p. 81.

⁴⁷ Cf. Lotfi/Saghiri (2018), p. 170, online source [03.02.2021].

⁴⁸ Swafford/Ghosh/Murthy (2005), p. 172, online source [03.02.2021].

⁴⁹ Cf. Swafford/Ghosh/Murthy (2005), p. 172, online source [03.02.2021].

enables the company to meet customers demand at any time without having to reject orders. If, on the other hand, the demand curve is sloping downward, the company can avoid additional costs that could arise from overproduction.⁵⁰

In relation to agility, as just discussed, a distinction can therefore be made between downturns and upturns. A downturn is a phase in which the company's performance declines over time. This can result, for example, from a collapse in demand due to a disruption. The upswing phase, on the other hand, is the phase in which the company's performance increases over time. This can result from a surprisingly strong increase in demand, which in turn can be caused by an economic upswing.⁵¹ In the course of this master thesis, reference is made to the area of downturns, since a crisis in the first place results in a decline of the company's performance.

In order to increase agility in the operations area of a company, there are a number of levers in the literature, the so-called agility levers. These can be further divided into six categories: agile work organisation, agile production facilities, agile procurement, agile logistics, agile production network and agility through product design. In the following, selected agility levers that are relevant for quick reaction in crisis situations are described in more detail:⁵²

- Through the standardisation of processes, production and multi-qualified personnel, it is possible for companies to transfer personnel quickly between different production facilities. Furthermore, by implementing so-called employee pools for special projects, companies can provide personnel for problems that arise within a short period of time.
- In addition, the use of temporary workers and the implementation of flexible work contracts for production workers enables several operational actions. For example, the number of employees or shifts per day can be quickly adjusted to compensate fluctuations in demand. Moreover, it is possible to make short-term adjustments to company holidays in order to reduce overtime.
- Another way of balancing demand fluctuations is to deliberately overbook with orders. In this case, capacities are outsourced to contract manufacturers, which, in the event of a decline of demand of other products, are withdrawn from contract manufacturers and produced in-house again.
- Creating transparency in the supply chain down to the sub-supplier level and building strategic partnerships are other levers that can be used to communicate

⁵⁰ Cf. Schurig (2017), p. 79 ff.

⁵¹ Cf. Schurig (2017), p. 80 f.

⁵² Cf. Pointner (2017), p. 202 ff.

with suppliers and thereby avoid unplanned delivery delays. In times of crisis it may be possible to take advantage of privileged customer status.

- Another measurement is to ensure adaptability of logistics management and proactively contact logistics service providers. This enables a quick response in terms of means of transport (truck, ship, rail, plain). In the event of a crisis it may also be important to build up a stock of components that could cause a bottleneck in order to avoid disrupting the supply chain.
- Lastly, the implementation of a customer communication network is important, which makes it possible to directly implement adjustments to customer feedback in different areas (quality, finance, engineering). Moreover, this enables to gather information from the market in order to make faster and better decisions regarding the products produced. It also offers the possibility to manage customer concerns more comprehensively.

Resilience

In addition to the concept of agility, the term resilience has gained popularity as an important characteristic for companies in turbulent times.⁵³ Resilience can be defined as the ability to prepare, plan and adapt to changing circumstances.⁵⁴ The English colloquial phrase "to bounce back" is also used to describe the meaning of resilience. In this context, it means not letting things get you down and going back to the original baseline state in order to be successful again.⁵⁵ According to Schurig, resilience attempts to increase robustness in regard to external disruptions. The focus hereby is on unpredictable events or events with a low probability of occurrence but significant effects. The goal is to be able to react faster than the competition through specific preparation for such events.⁵⁶ Sheffi goes even one step further and states, that resilience is the management of external disruptions where the goal is not only to return to the baseline state, but optimally to achieve a better state beyond the baseline state.⁵⁷ By using multidisciplinary perspectives Panomarov and Holcomb defined resilience as "the adaptive capability of the supply chain to prepare for unexpected events, respond to disruptions, and recover from them by maintaining continuity of operations at the desired level of connectedness and control over structure and function".⁵⁸

⁵³ Cf. Teece et al. (1997), quoted from: Reid/Ismail/Sharifi (2016), p. 152.

⁵⁴ Cf. National Research Council (2012), p. 14.

⁵⁵ Cf. Amann (2019), p. 117.

⁵⁶ Cf. Schurig (2017), p. 90.

⁵⁷ Cf. Sheffi (2005), quoted from: Schurig (2017), p. 90.

⁵⁸ Ponomarov/Holcomb (2009), p. 131, online source [03.02.2021].

Linkage between Resilience and Agility

Resilience includes agility and agility can be seen as a resilience enabler. There are two components to resilience itself. The first component is agility, which is also considered as reactive, and the second component is robustness, which is considered as proactive.⁵⁹ The focus of robustness lies on maintaining functionality and even though changes occur, functionality must be provided in regard to internal and external changes as well as for short-term changes and in the event of a disruption. This results in the need to proactively prepare for unexpected disruption and change, which enables resilience.⁶⁰

The Heinicke concept of resilience is a combination of agility, which is represented by the regeneration velocity and is the ratio between the performance change (ΔP) to the time (Δt) to return to the baseline performance, and robustness, which might also be seen as the remaining performance level after a disruptive situation. As a general rule it can be stated: The more robust a system is, the higher the level of performance after a disruption and therefore the smaller is the reduction in the company's performance. The faster a system is back to its potential baseline performance, the higher the agility of a system. This definition allows furthermore to evaluate the vulnerability of a system, which can be calculated as:⁶¹

$$\text{Vulnerability} = \text{Potential Performance} - \text{Resilience}$$

The following figure illustrates the concept of Heinicke, which was discussed above.

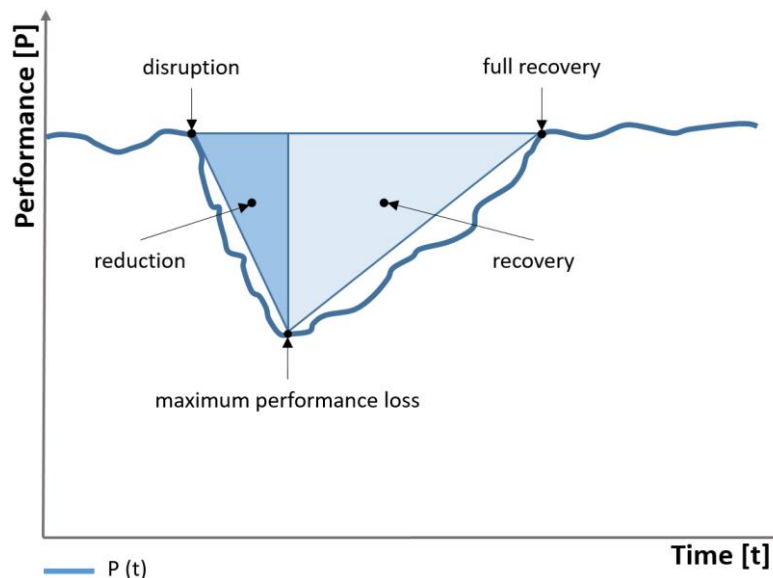


Figure 7: The Heinicke Concept of Resilience, Source: adapted from Heinicke (2017), p. 58.

⁵⁹ Cf. Lotfi/Saghiri (2018), p. 171, online source [03.02.2021].

⁶⁰ Cf. Heinicke (2017), p. 32 f.

⁶¹ Cf. Heinicke (2017), p. 34 ff.

2.5 Elements of Crisis Management

Crisis management generally could be defined as a process, as an institution and as a system. Crisis management as a process describes the various phases into which crisis management can be subdivided. Crisis management as an institution involves all management personnel (crisis actors) and crisis management as a system describes in model form how an organization is structured and organized with regard to the various crisis management tasks.⁶² This type of characterisation allows crisis managers and other decision makers to obtain and consider scientific and technological knowledge and data in order to understand and respond to crisis situations.⁶³

2.5.1 Crisis Management as a Process

Until today various different definitions regarding the characteristic phases of crisis management, namely crisis planning, crisis preparation, crisis identification, crisis prevention, crisis response, proactive and reactive phases, crisis control, crisis recovery, to name just a view of them, are existing.⁶⁴ In order to provide clarity here, attempts for possible classifications are presented in the following. Some of them are similar in their definition, while others have been further developed on the basis of existing definitions.

2.5.1.1 *The Krystek Classification*

According to **Krystek**, crisis management can be divided into four characteristic phases including the phases of identification, planning, realization and control.⁶⁵

Identification

The management process with respect to company crises does not begin when the problem objectively emerges, but at the time when it is perceived as such.⁶⁶ Due to the fact that a company crisis can threaten the existence of a company⁶⁷, it is important to identify it.⁶⁸ However, this is where the problem of crisis management lies. If company crises are not identified in time, the scope for effective crisis management narrows as the options for action are reduced over time. For this reason, analysis, forecasts and specific early warning information are used to identify potentially emerging company crises at an early stage.⁶⁹

⁶² Cf. Cezanne (1999), p. 22; Krystek/Fiege (2018), online sources [04.01.2021].

⁶³ Cf. OECD (2018), p. 26.

⁶⁴ Cf. Jaques (2009), p. 284 f., online source [14.01.2021].

⁶⁵ Cf. Krystek (1987), p. 91 ff.

⁶⁶ Cf. Kraus/Scheff/Gutschelhofer ed. (1994), p. 7.

⁶⁷ Cf. Chapter 2.1.

⁶⁸ Cf. Müller (1982), p. 50.

⁶⁹ Cf. Krystek (1987), p. 91.

Planning

Planning is also of great importance in crisis management. Once a crisis has been identified as such, the next step involves planning the objectives for crisis prevention and crisis management, and then planning the strategies and measures to achieve these objectives. In target planning specific minimum targets are set which must at least be achieved in order to ensure the continued existence of the company. These include value targets with regard to profit targets and liquidity requirements, as well as targets which specify essential products and product groups, but also human targets which define requirements for behaviour toward employees and third parties. Based on these goals, action targets are derived which need to be specified for the desired type of crisis avoidance or crisis management. Target achievement planning is then used to define strategies and detailed measures for implementing the defined targets, whereby a distinction is made between strategic and operational planning. The entire planning process is also referred to as crisis program.⁷⁰

Realization

For the coordination and implementation of all actions defined in the crisis program, the selection of the right employees is of great importance. In case of lack of qualification of the company members, the assignment of external consultants might be a way to remedy the problem. Further problems with the implementation can be caused by technological, psychological or power barriers.⁷¹

Control

Controlling the targets which were set during the process of crisis management is a complementary procedure to the planning phase and might be realised after, during or before the realization phase. Controlling as a central management task in the sense of target/actual comparisons and deviation analysis is not only dealing with the course of realization, observance of the planned procedures and the results achieved by the planned procedures, but also monitors the negative effects of crisis management on the other actions taking place within the framework of regular operations.⁷² The following figure is illustrating the phases according to Krystek.

⁷⁰ Cf. Cezanne (1999), p. 23 f.

⁷¹ Cf. Rösen (2017), p. 257 f.

⁷² Cf. Krystek (1987), p. 97.



Figure 8: Phases of Crisis Management according to Krystek, Source: based on Krystek (1987), p. 92.

2.5.1.2 The OECD Classification

Furthermore, the **OECD** splits up crisis management into three phases, which are preparedness, response, recovery and feedback, and structures them in a way so that they represent an interdependent cycle. The goal here is to effectively prepare, respond and learn from crises. However, in practical terms, it is not always possible to differentiate between the three phases. This is especially the case in health-related diseases (epidemics) or other complex problems, in which the phases might occur at the same time.⁷³ The three phases will be discussed and visualized in more detail in the following.

The **preparedness** phase is the foundation for crisis management and is therefore of great importance. In order to prepare effectively, it is necessary to acquire expertise in the scientific and technical fields, which then enables the company to identify ongoing changes and potential risks, reflect on the impact of a crisis, define strategies that provide security for the company, and implement early warning systems based on experiences from past crises. Establishing response measures in quiet times and ensuring they are up-to-date is the key to effectively preparing for a crisis event. Therefore, it is necessary to generate and maintain understanding among all stakeholders, and specifically train and keep employees informed so they know precisely what needs to be done if such an event occurs.⁷⁴

⁷³ Cf. OECD (2018), p. 30.

⁷⁴ Cf. OECD (2018), p. 30 ff.

In the **response** phase decisions have to be made quickly. Therefore it is important to have information and scientific data available that are clearly communicated and have a high level of quality in terms of actuality and content. This might also be referred to as the sense making period. Depending on the nature and location of the crisis, this period

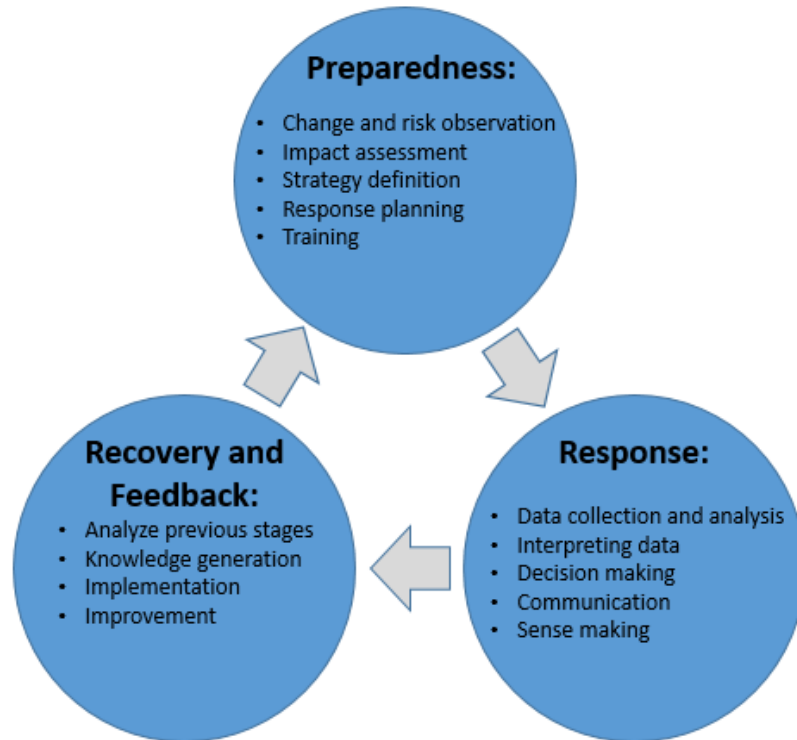


Figure 9: Phases of Crisis Management according to OECD, Source: based on OECD (2018), p. 31.

might be short, e.g. in case of natural disaster (tropical cyclone, storm), or might last for weeks and months in case of a pandemic.⁷⁵

In the **recovery and feedback** phase, which occurs after a crisis has ended, the goal is to critically analyse the preparation and response phases in order to generate insights that may be used to further improve the entire process. Not only should internal aspects, such as the communication process, be examined, but also an external analysis should be conducted to generate information on a broader scale. The insights gained must then be structured and systematically implemented in the previous stages to ensure an even more effective crisis management process in the future.⁷⁶

2.5.1.3 The Coombs Classification

According to **Coombs**, crisis management may be structured into the pre-crisis, crisis response, and post-crisis phase. The pre-crisis includes crisis prevention measures, the

⁷⁵ Cf. OECD (2018), p. 32.

⁷⁶ Cf. OECD (2018), p. 33.

crisis response is concerned with the crisis itself, while the post-crisis is related to the measures taken to recover and learn from it.⁷⁷ This approach will be discussed in more detail below.

The first phase, the **pre-crisis phase**, represents a combination of measures taken in advance to the occurrence of a crisis. This phase can further be divided into **prevention**, also referred to as mitigation or preparedness and **preparation**. Prevention serves to detect risks and decrease the possible negative or harmful consequences. Risk can occur due to personnel, products, the production process, facilities, social issues, competitors, regulators, and customers. The task is to avoid a crisis from developing, because, as Coombs said, “The most effective way to manage a crisis is to prevent it”⁷⁸. Therefore, risk allocation models can be used that allow crisis actors to proactively monitor ongoing developments. Prevention involves removing the risk, decreasing the probability of a risk occurring, and decreasing the threat posed by a risk. Furthermore, it is of major importance for the crisis managers to install a communication network to generate and evaluate information from internal as well as from external stakeholders of the company. This is also known as sense making (also see OECD-response phase above). However, it is not possible to prevent all crises and therefore it is necessary to prepare the organization, and especially the people, because it is a matter of “when” and not “if” a crisis occurs. Within this phase a crisis management plan (CMP) is created, which defines the members of the crisis management team (CMT) and allows them to efficiently respond, so that they do not have to think about who is doing what. The CMP can be used as a guideline with predefined responsibilities and tasks for employees. In order to be able to take advantages of such a CMP, it is necessary to implement exercises and trainings for the team in order to get them used to the plan on the one hand, and on the other hand to simulate the crisis management process.⁷⁹

The **crisis response phase** consists of the subphases, **recognition** and **containment**. Here, the focus is on the company’s response measures to the crisis situation, which are based on the CMP. In this phase it is particularly important to act quickly, accurately and consistently and to interact with all stakeholders of the company. Communication plays a central role in this phase.⁸⁰ The **recognition** and occurrence of a crisis event brings the preparation phase to the test. The beginning of the crisis response phase is characterized by a triggering event and the end of this phase is reached when the crisis is considered to be resolved. While some crises have an obvious triggering event, others

⁷⁷ Cf. Coombs (2009), p. 99.

⁷⁸ Coombs (2009), p. 100.

⁷⁹ Cf. Coombs (2009), p. 101 f.

⁸⁰ Cf. Coombs (2012), quoted from: Zamoum/Gorpe (2018), p. 204 f., online source [16.01.2021].

are difficult to detect. The situation becomes a crisis when the management team agrees that it is a crisis. However, the perception of whether it is a crisis situation or not varies among people and members of the management might even deny the existence of a crisis situation. If the crisis is perceived as such, the crisis management team begins to gather and analyze information quickly and carefully to create crisis-related knowledge. This knowledge forms the basis for decision-making and the creation of the message to internal and external stakeholders, also known as "crisis selling." A company cannot efficiently manage a crisis if it lacks information. Within the **containment** phase, the CMT has two goals. First, the spread of the crisis to uninvolved areas of the company or the environment must be prevented. Second, the team must limit the duration of the occurrence of the crisis situation. To achieve this, quick response is the key to efficient crisis response. In addition, communication plays an essential role in this phase, as the company needs to provide stakeholders with consistent information, which is often a challenge. Communicating with one voice through one spokesperson is one way to prevent conflicting information from being disseminated.⁸¹

In the **post-crisis phase** the company is getting back to the "normal"⁸² day-to-day business and the focus on the crisis is decreasing. The overall goal in this phase is to **evaluate** how the organization has been handling the crisis and, related to this, to conduct analyses and investigations of the actions taken in the previous phases that will furthermore enable the company to learn from the crisis in order to increase the overall effectiveness of the crisis management process. This section is also known as post-mortem. In particular, the crisis actors need to discuss about what worked well and what needs to be further improved. The challenge within this is, to gather all the important information and to create an environment which enables the team to do so, because people may not want to share negative information. What should be mentioned is, that the goal is not to blame anyone, but rather to improve the process. Examples of findings from the investigation step could be that an adaption of the CMP is required or that certain members of the CMT need to be substituted. In the post-crisis phase communication still plays an important role, especially regarding follow-up communication among stakeholders about updates, ongoing investments and the recovery. Suppliers and customers might, for example, be concerned about when the supply chain will recover, while investors are interested in the development of the earnings and employees in the development of their job situation. Providing this information results in a strengthened trust among stakeholders towards the company.⁸³ Accurate and comprehensive

⁸¹ Cf. Coombs (2015), p. 27 ff.

⁸² Cf. Chapter 1.1.

⁸³ Cf. Coombs (2009), p. 113 f.

evaluation of crisis management performance and the lessons learned help to improve and increase efficiency for future crisis management. This also represents the natural transition toward the pre-crisis phase of crisis management.⁸⁴ These phases of the Coombs approach are visualized below in Figure 10.

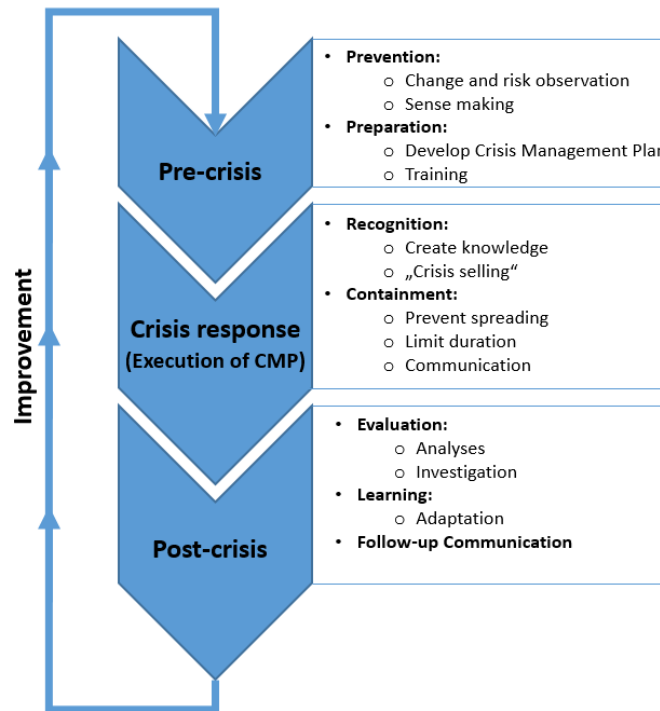


Figure 10: Phases of Crisis Management according to Coombs, Source: own representation.

2.5.1.4 Differences and Similarities of the Classifications

Since several different possible classifications on the subject of crisis management as processes have now been presented and discussed, the differences and similarities between these classifications will be discussed below.

When looking at the classifications, it can be seen that there are basic similarities with regard to the contents of the respective classifications, but there are differences in the subdivision of the individual process steps. Similarities of all classifications can be found with regard to the preparation for a crisis. This involves keeping an eye on developments in a company’s environment and analyzing risks for a company. Furthermore, all classifications point out the importance of communication in crisis management, which is the basis for generating information, which in turn is the basis for decision-making. Other common features of the classification are the reference to the relevance of quick action in the event of a crisis and the analysis of the crisis management process after a crisis situation has occurred.

⁸⁴ Cf. Coombs (2015), p. 209.

Differences in the classification can be seen in terms of continuity of the classifications. For example, the Krystek classification presents the phases of crisis management as a linear one-time event, whereas the OECD and Coombs classification presents crisis management as a continuous process, in which it is important to incorporate the experiences of past crises into future crises in order to be able to constantly improve the crisis management of a company as a whole.

In the context of this work reference is made to Coombs' characterization of crisis management phases, as this characterization is clearly structured and presents the process of crisis management as a continuous process. Furthermore, it has implemented the various essential tasks for crisis management.

2.5.2 Crisis Management as an Institution

Crisis management as an institution involves those employees or groups of people who are the driving force in the crisis management phases for strategies and measures for crisis prevention or crisis management and who therefore basically take over the management of the company in crisis situations.⁸⁵ Böckenförde specifies the bearers of crisis management internally with the top, middle and lower management, as well as the supervisory and control organs. Outside the company banks, consultants, crisis managers and insolvency administrators are being involved in the crisis management process.⁸⁶

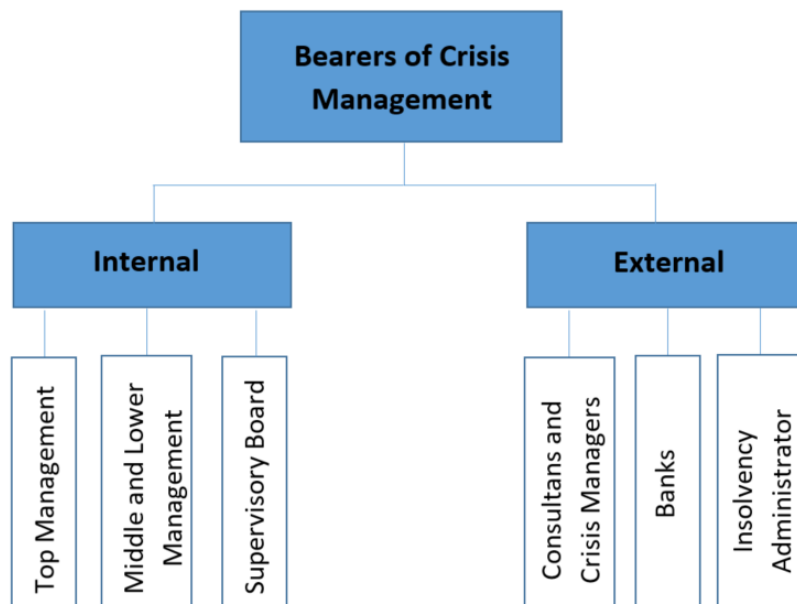


Figure 11: Bearers of Crisis Management, Source: based on Böckenförde (1991), p. 97.

⁸⁵ Cf. Müller (1982), p. 100.

⁸⁶ Cf. Böckenförde (1992), p. 97.

Internal

The key players in crisis management can be found in the top management, such as the board of directors and general management, as well as the executives in the lower levels of the company hierarchy.⁸⁷ The team as a whole finds itself in a challenging situation in latent and especially in sudden company crises. On the one hand, they are responsible for the continuation and survival of the company in crises and on the other hand, they are responsible for causing the crisis situation. This dilemma often prevents an objective approach to the crisis and usually leads to destructive justification strategies. Replacing the leadership, whether as a whole or only in part, would lead to additional uncertainty inside and outside the company in a crisis situation, which in turn can intensify the crisis dynamics. Nevertheless, this is not uncommon in practice, because parts of the leadership are blamed for causing the crisis on the one hand or are not trusted with crisis management on the other hand.⁸⁸ The task of middle and lower management in this approach is to assist the top management in detailed planning, implementation and control of the measures adopted.⁸⁹

Depending on the legal form of the company, the supervisory board has various types of monitoring and control functions⁹⁰ and generally no direct right of giving instructions toward the management of the company. However, they can influence significant legal transactions of the company through an established right of approval and therefore play a role in determining the process of crisis prevention or crisis management, which is furthermore of importance in crisis management as an institution. By forming joint committees with the management, they can actively participate in the management of the company and become important bearers of crisis management. Not to be underestimated, however, are the conflicts of interest that arise among committee members, which can lead to destructive effects in crisis management.⁹¹

External

External consultants might not only provide support in crisis prevention but also in crisis management situations. On the one hand, they can be used in addition to the company management as an institution for solving special problems and on the other hand, they can advise the company management in all relevant areas and in extreme cases or even replace them.⁹² In doing so, they are exposed to special challenges. External consultants

⁸⁷ Cf. Kalavar/Mysore (2017), p. 5, online source [06.01.2021].

⁸⁸ Cf. Cezanne (1999), p. 25 f.

⁸⁹ Cf. Rösen (2017), p. 252.

⁹⁰ Cf. Roos/Pidun/Stange (2018), online source [06.01.2021].

⁹¹ Cf. Krystek (1987), p. 98 f.

⁹² Cf. PwC (2021), online source [06.01.2021].

must first become familiar with the circumstances of the company and their specific problems before they can initiate measures. However, this appears to be surmountable due to their experience and detailed knowledge.⁹³

Banks are also involved in crisis management as an institution, as they have an interest in the progress of the crisis in the case of an existing loan on the company. For this purpose the bank often provides the company with specific know-how regarding financial competence, which they commonly provide free of charge.⁹⁴

If a company crisis has reached a stage where insolvency proceedings have to be initiated, an insolvency administrator is becoming part of the crisis management institution. In case of restructuring procedure without self-administration the insolvency administrator then take over the company management.⁹⁵

2.5.3 Crisis Management as a System

The literature defines various models and approaches that can be used to describe crisis management as a system and in all of these the overall goal is the survival of the company in the short term perspective.⁹⁶ Two well-known approaches and definitions have been given by Müller and Krystek. While Krystek defines crisis management as a system of different fields of action for crisis prevention or crisis management, which can be pursued in the course of company crises⁹⁷, Müller classifies it on the basis of the stages in the development process of the company crisis, whereby he sees crisis management only as the management of crises and completely excludes crisis prevention.⁹⁸

In the following different concepts will be discussed and explained in more detail.

2.5.3.1 The Müller Approach

Müller distinguishes between three main types of crisis management as a system.

Strategic crisis management

Strategic crisis management serves to secure the potential for success on a long term perspective, which guarantees the continued existence of the company. The aim is to raise awareness of developments in the corporate environment in order to eliminate

⁹³ Cf. Johansen (2017), p. 16 ff., online source [06.01.2021].

⁹⁴ Cf. Rösen (2017), p. 253.

⁹⁵ Cf. WKO (2020), online source [06.01.2021].

⁹⁶ Cf. Blatz/Kraus/Haghani (2006), p. 6.

⁹⁷ Cf. Krystek (1987), p. 105.

⁹⁸ Cf. Müller (1982), p. 5 f.

influences that might threaten the company at an early stage. This includes, for example, exiting vulnerable product/market combinations that are not profitable in the long term.⁹⁹

Success target-ensuring crisis management

Within the framework of success target-ensuring crisis management, the impending threat of not achieving the targets relevant to the company's survival, such as sales, profit and profitability targets, is avoided and necessary earnings are reestablished to ensure the company's survival. The instruments used to achieve this are, in particular, cost-cutting and savings programs, capacity reductions and financial and sales policy programs.¹⁰⁰

Liquidity ensuring crisis management

The task of liquidity ensuring crisis management is to guarantee the availability of liquid funds so that the company can meet its obligations as they arise.¹⁰¹ Liquidity crises may be controlled by financial measures that correct inaccurate financial planning or a bottleneck between the need and availability of financial resources caused by unforeseeable events.¹⁰²

Crisis management in the event of insolvency is a special case. The objective here is to ensure the continuation of the company, even after insolvency has occurred. This is achieved through a comparison in or out of court, whereby the claims of the creditors are satisfied to a minimum extent. Even in the event of bankruptcy, the bankruptcy administrator can arrange the continuation of the company.¹⁰³

2.5.3.2 The Krystek Approach

Krystek differentiates the contents of crisis management based on the aggregate states and therefore the respective stages through which a company crisis could evolve. In the literature crisis management as a system is therefore generally divided into two categories, namely, active and reactive crisis management.¹⁰⁴

Active Crisis Management

Active crisis management focuses its activities on preventing company crises and consequently concentrates on those phases of the crisis process in which the crisis does

⁹⁹ Cf. Müller (1982), p. 30.

¹⁰⁰ Cf. Müller (1982), p. 30.

¹⁰¹ Cf. Banks (2014), p. 25.

¹⁰² Cf. Müller (1982), p. 31.

¹⁰³ Cf. Müller (1982), p. 31f.

¹⁰⁴ Cf. Krystek (1987), p. 105 f.

not yet represent an immediate threat (latent crisis)¹⁰⁵. The task is to mentally anticipate potential or hidden crises that are already in place and to prevent them as far as possible through early detection and prevention measures. Furthermore, this form of crisis management can be divided into anticipative and preventive crisis management.¹⁰⁶

Reactive Crisis Management

In the event of a crisis which is already existing, crisis management cannot be done actively any more. Therefore, the CMT finds itself in a passive position. The task of reactive crisis management is then to bring the crisis under control and mitigate destructive consequences. A division into repulsive and liquidative crisis management may be done in this context.¹⁰⁷

2.5.3.3 The RBSC Approach

The RBSC (Roland Berger Strategy Consultant) model is used to ensure the survival of the company in crisis situations, which, as mentioned above, is the primary goal of the majority of crisis management approaches¹⁰⁸ and was designed from 1,500 projects based on practical experience. Within this model, a restructuring concept with standardized elements for the organization is presented, which can be used in the event of a latent crisis situation and allows solutions for the company's and industry's specific needs. The implementation of this concept can be accomplished within six months to two years and includes two main phases. Phase 1 (duration of 2-6 weeks) is also referred to as "Quick Wins". Here, immediate actions are initiated and the team, implementing the restructuring process, is identified and introduced. Phase 2 (duration of 6-24 months) defines and implements the restructuring process in more detail.¹⁰⁹

2.5.3.4 The bureaucratic and adaptive Approach

The **bureaucratic traditional approach**, which might also be defined as command and control model, is a concept which is representing a system with strictly rigid hierarchical structure, centralized decision-making and communication. This can lead to ineffective and inefficient responses because predefined guidelines may not be optimal for the current crisis situation. As the opposite of the traditional model and as a flexible model for crisis management can be seen the **adaptive approach**. Adaptive in this context means to stay flexible and creative while handling unexpected situations. In order to have

¹⁰⁵ Cf. Chapter 2.3.

¹⁰⁶ Cf. Krystek (1987), p. 106.

¹⁰⁷ Cf. Krystek (1987), p. 106.

¹⁰⁸ Cf. Chapter 2.5.3.

¹⁰⁹ Cf. Blatz/Kraus/Haghani (2006), p. 6.

the ability to improvise under special circumstances, like a crisis, this has become increasingly important.¹¹⁰

2.5.3.5 The Deloitte Approach

A further model for crisis management is defined by Deloitte, which can be divided into four sections. The first describes the importance of a living CMP. This involves the art of risk assessment and the creation of a robust plan, which is then regularly reviewed and further developed and thus represents a living document of the company. Preparing employees in advance is another point of the model. As crises can happen all of a sudden, it is important that each employee is aware of his role in the organization. Therefore a step-by-step plan for employees should be defined and applied, which gives the employee a clear understanding of how to act in the event of a crisis. The third point of the model deals with the transformation of weaknesses into strengths. This requires an assessment of maturity, which provides information about the crisis management capability of the company and allows further on the identification of areas that might need to be improved. The fourth and last point of the model focuses on not considering crisis management as a one-time event, but rather as a continuous cycle that is part of the daily activities in the company. The goal is not to create fear, but to identify opportunities and find ways to become a more resilient company.¹¹¹

¹¹⁰ Cf. Jung/Song/Park (2017), p. 282 ff., online source [08.01.2021].

¹¹¹ Cf. Deloitte (2021), online source [08.01.2021].

2.6 Crisis Communication

Originally, the term crisis communication developed from the consideration of company crises in practice, whereas from the perspective of crisis management, communication is defined as an especially important factor to be considered in crisis management.¹¹² The aim of crisis communication is to satisfy the need for information created by the crisis situation and to limit the damage to the company and its stakeholders. Trust must be won among these parties by providing fast and factual information.¹¹³

“Scholars have long recognized the important role communication plays in effective crisis management”.¹¹⁴ Especially in the crisis response phase, which represents the minutes, hours, days and weeks after a crisis has occurred, communication plays a major role, since this phase is also typified by short decision-making time, complexity and ambiguity resulting in a high risk of harm to the company. The organization of a company as a whole, including its employees, the community and the public are influenced by their communication behaviours, which can furthermore affect recovery in the post-crisis phase and may even save lives.¹¹⁵

But crisis communication is in fact much more complex and does not only influence the crisis response phase. Crisis communication generates added value in all phases of the crisis management process and is therefore also an essential component in the pre-crisis phase and in the post-crisis phase. In every phase of a crisis, communication is at the center of crisis management in order to satisfy the information needs of all stakeholders. In addition, communication makes it possible to gather and analyze knowledge that forms the basis for decision-making, so that it can then be shared again.¹¹⁶ And a crisis communications plan (CCP), which is part of the CMP, can be used for this purpose. Such a plan provides information about the primary spokesperson for the organization in a crisis situation, which is necessary to ensure that statements and explanations are communicated consistently between internal and external stakeholders. It also identifies alternative spokespersons and prepares an organization for a crisis situation, because communication is also important before a crisis to generate information and after a negative event to review how the organization behaved during the crisis.¹¹⁷

¹¹² Cf. Thießen (2011), p. 85.

¹¹³ Cf. Seeger (2006), p. 234.

¹¹⁴ Hale/Dulek/Hale (2005), p. 114.

¹¹⁵ Cf. Hale/Dulek/Hale (2005), p. 114.

¹¹⁶ Cf. Coombs (2009), p. 115.

¹¹⁷ Cf. Lando (2014), p. 9 f.

2.6.1 Crisis Communication Strategies

To ensure that information and knowledge are communicated in a desirable manner to stakeholders of an organization, various strategies can be employed. These strategies are designed to help communicate messages that are most beneficial to the organization’s image.¹¹⁸ Within this chapter the two approaches, the image restoration theory (IRT) from Benoit and the situational crisis communication theory (SCCT) from Coombs, will be discussed in more detail.

Image Restoration Theory

Benoit developed different strategies of justification for the image restoration of organizations or persons. They are supposed to offer organizations and individuals communication possibilities in order to be able to keep their positive image after crises. Five categories are distinguished to which a total of 14 different strategies are assigned. Simple denial, as well as shifting the blame and attributing responsibility for a crisis to someone else, are assigned to the category of denial. Evading responsibility is another strategy used by organizations or individuals during crisis situations. In this strategy the defendant states that the act was unintentional, due to a lack of information, or that the organization’s or person’s intentions were well-meant. Another category is the reduction of the offensiveness of the act. For example, organizations or individuals try to point to positive acts in the past, thereby minimizing the negativity of the act. The last two strategies are mortification and pointing out solutions to fix the problem. IRT thus uses communication to prevent damage to its image. Corporate communications must be goal-oriented and focused on the positive reputation of the organization.¹¹⁹ Table 1 gives an overview and includes examples of the IRT.

Table 1: Image Repair Strategies, Source: based on Benoit (2015), p. 30.

General Strategy	Tactic	Example
Denial	<ul style="list-style-type: none"> • Simple denial • Shift blame 	<ul style="list-style-type: none"> • I did not embezzle money. • Steve took your wallet, not me.
Evade responsibility	<ul style="list-style-type: none"> • Provocation • Defeasibility • Accident • Good intentions 	<ul style="list-style-type: none"> • I insulted you but only after you criticized me. • I was late because traffic delayed me. • Our collision was an accident. • I did not tell you because I hoped to fix the problem.
Reduce offensiveness	<ul style="list-style-type: none"> • Bolstering • Minimization • Differentiation • Transcendence • Attack accuser • Compensation 	<ul style="list-style-type: none"> • Think of all the times I helped you. • I broke your vase, but it was not an expensive one. • I borrowed your laptop with-out asking; I did not steal it. • Searching travelers at the airport is an inconvenience, but it protects against terrorism. • Joe says I embezzled money, but he is a chronic liar. • Because the waiter spilled a drink on your clothes, we will give you desert for free
Corrective action		<ul style="list-style-type: none"> • Because the waiter spilled a drink on your suit, we will have it dry cleaned.
Mortifikation		<ul style="list-style-type: none"> • I am so sorry I offended you. I regret hurting your feelings and I apologize.

¹¹⁸ Cf. Löffelholz/Schwarz (2008), p. 28 f.

¹¹⁹ Cf. Benoit (2015), p. 22 ff.

However, the Benoit approach does not address the question which communication strategy can be used in which crisis. The situational crisis communication theory developed by Coombs (1995) deals with the specific characteristics of crisis situations and the anticipation of the perception of crisis situations by the organization stakeholder groups.¹²⁰

Situational Crisis Communication Theory

In the SCCT, a two-stage process is used when applying an appropriate crisis strategy. First, the stakeholder’s attribution of blame for a crisis situation is analysed. According to Coombs, there are three crisis types that can cause different levels of image damage. The victim crisis has the least damage because the blame is weak. Often, the organization or person involved is a victim (e.g. natural disasters). Stronger attribution of blame occurs in the accident crisis. The damage to the reputation of the affected organization or person is more severe. The greatest damage is borne by the company in the case of an avoidable crisis. The blame and responsibility is attributed entirely to the organization or person because the failure was deliberate. The second stage is to investigate whether there are other intensifying factors contributing to the attribution of blame by the public. In regard to this, studies in research have been able to identify two factors. First, crisis history plays a role in the attribution of blame. For example, if an organization has experienced a similar crisis in the past, this may indicate bad behaviour on the part of the organization or individual. Therefore, the attribution of blame may be higher in the event of a new crisis. Secondly, the previous image of the person or organization plays a role. If a negative image can already be determined before a crisis, the crisis blame assignment is also to be considered higher in this case. According to SCCT, there are three strategies available (deny, diminish, rebuild) to affected organizations or individuals in responding to a crisis. Specific approaches can be

Table 2: Situational Crisis Communication Theory, Source: based on Burk/Grimmer (2016), p. 12.

Crisis Type	Cluster	Strategy
Victim crisis	Rejection	<ul style="list-style-type: none"> • Denial • Scapegoat • Attack the Accuser
Accident crisis	Mitigation	<ul style="list-style-type: none"> • Excuse • Justification • Ingratiation
Avoidable crisis	Agreement/Reconstruction	<ul style="list-style-type: none"> • Concern • Compassion • Regret • Apology

¹²⁰ Cf. Burk/Grimmer (2016), p. 10.

assigned to each of the three different crisis types (victim crisis, accident crisis, avoidable crisis) and the strategies available.¹²¹

2.6.2 Crisis Communication Models

According to Coombs crisis communication can be differentiated between crisis knowledge management and stakeholder reaction management. Crisis knowledge management consists of gathering information, evaluating the information, distributing the information gained, and then making decisions. The term stakeholder reaction management covers all activities aimed at using communication to affect the organization's interest parties, this can be done through words as well as actions. The stakeholders' awareness of the crisis situation, the structured approach to the crisis situation and the related response to the crisis, is essential to be able to manage and control the crisis in the desired way.¹²²

Linear Crisis Response Communication Model

The linear crisis response communication model consists of four interdependent stages, namely observation, interpretation, selection, and dissemination, which follow a triggering event and are sequential in structure. Within the observation step, data regarding the crisis event is collected, organized, and accessed, and furthermore, an assessment of the missing information is conducted. The interpretation step focuses on evaluating the accuracy and relevance of the data collected in the previous step. In addition, newly gathered information is analyzed and, if it is in line with the previously gathered data, a clear picture of the crisis is created in order to gain a better understanding of the situation and move on to the next step. The step choice, which represents the communication in the CMT, is to discuss the clearly defined picture from the previous step. Here, the team has to make important decisions under very challenging conditions such as limited resources, ambiguity, time pressure and stress that can reduce the damage of the crisis to the company. After deciding on a set of measures to be implemented in the previous step, the next step, dissemination, focuses on informing the people involved in implementing these measures and sharing information with the public.¹²³

Spiral Crisis Response Communication Model

Even though the steps in the linear model discussed earlier provide a method of categorizing crisis response communication and the associated information generation, it is incomplete in terms of highlighting the complexity of the communication process. The

¹²¹ Cf. Coombs (2010a), p. 39 ff.

¹²² Cf. Coombs (2010b), p. 720.

¹²³ Cf. Hale, J./Dulek/Hale, D. (2005), p. 119 f.

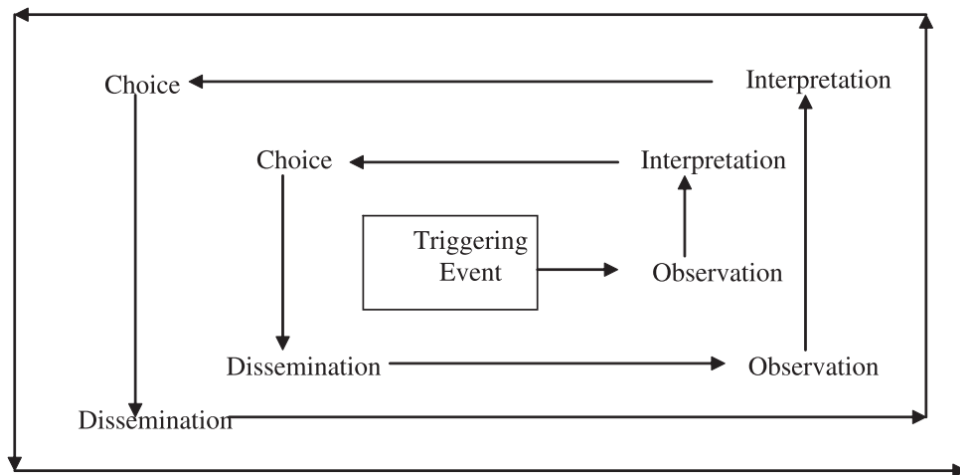


Figure 12: Spiral Crisis Response Communication Model, Source: Hale/Dulek/Hale (2005), p. 123.

spiral communication model, similar to the linear model, begins with the triggering event, however it differs in the way the steps are structured afterwards. Within the spiral model, the data analysis process in the crisis response phase is iterative, with a number of iterations in the range of four to seven, resulting in several repetitions of the observation, interpretation, selection and dissemination steps, which is visualized in figure 12.¹²⁴

¹²⁴ Cf. Hale, J./Dulek/Hale, D. (2005), p. 122 f.

2.7 The Crisis Management Plan

When companies prepare for a crisis situation, they usually create a crisis management plan. At this point, it should first be mentioned that a CMP does not protect a company from the occurrence of a crisis and a CMP is not a step-by-step guide, but rather a reference guide that contains the most important measures and information in order to be able to cope with a crisis. It should not be overly long or bulky.¹²⁵ However, the time and decision-making pressure that increases in crises requires fast action in a crisis situation and strategic action before and after the crisis event. To ensure this and to provide the necessary background information, a CMP assigned with specific responsibilities and stored contact data for potentially important contacts might be beneficial. A CMP defines the members of the CMT and enables them to respond quickly and efficiently in the event of a crisis situation because each of the crisis team members know what needs to be done and who will do it. The CMP therefore provides a guideline with predefined responsibilities and tasks for staff that must be practiced and trained regularly to take advantage of a CMP. Although the potential of CMPs to mitigate the course of crises is hardly in doubt, they cannot prepare for all conceivable scenarios.¹²⁶ For this reason many CMPs are structured as general guidelines rather than step-by-step instructions. However, both have their right to exist. The general approach can be applied to a wide range of crisis situations but is unspecific, while the step-by-step approach, on the one hand, limits the possible actions and can be misleading in different situations, but, on the other hand, has a clear structure with predefined responsibilities and tasks.¹²⁷ It should also be mentioned that companies should link emergency plans and business continuity plans to the CMP. It should be noted that the plans should not be seen as competing, but rather as complementing each other.¹²⁸

2.7.1 Relevance of the First Hours of a Crisis

As already mentioned in chapter 2.1 (“early detect, fast react”), time plays an important role when a crisis situation occurs. The first 24-72 hours after the outbreak of a crisis are of great importance for the success or failure in managing a crisis situation. Acting quickly and with confidence is paramount, which means that all measures must be deployed to ensure that the affected company can act and is not forced into a defensive position.¹²⁹

¹²⁵ Cf. Coombs (2015), p. 114 ff.

¹²⁶ Cf. Löffelholz/Schwarz (2008), p. 27.

¹²⁷ Cf. Seeger (2006), p. 234.

¹²⁸ Cf. Coombs (2015), p. 124.

¹²⁹ Cf. Deichler (2014), online source [23.02.2021].

Having a head start on time is important to be able to take action faster than the competitors, for instance increasing inventories and chartering cargo planes.¹³⁰

At this point, it is important to immediately refer to the previously prepared crisis management plan and to work through the relevant steps within the CMP. The communication of the incident both internally and externally is a crucial element in the early stages of a crisis and as discussed in the chapter above, informing employees is of great importance. Employees are disseminators to the public and, at the same time, those affected by the crisis. Any communication problems or a lack of information can have serious consequences for the development of the crisis.¹³¹

Furthermore, to increase the efficiency of the crisis management process in the first hours, the Pareto principle (see figure 13) can be applied. According to Pareto, 20% input leads to 80% output. Consequently, the remaining 80% input leads to only 20% output, which in turn can be considered as inefficient. Therefore, crisis managers should focus on the most important tasks with the greatest impact first, rather than spending time on the details and tracking everything down to the very last detail.¹³²

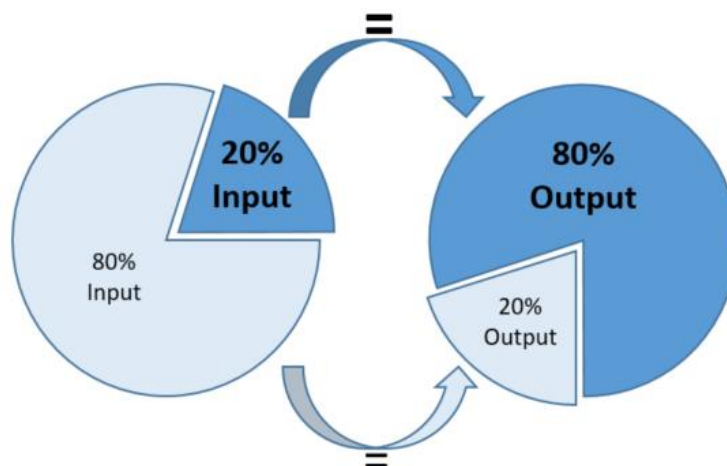


Figure 13: Pareto Principle, Source: own representation.

2.7.2 Content of a Crisis Management Plan

Crisis management plans are the paper evidence and the central tool for executing the planned actions. All crisis management plans have in common that they should be useful for the acute crisis case, as well as that crisis management plans in acute crisis cases should support the members of the crisis organization and should save the time for

¹³⁰ Cf. Köttritsch (2017), online source [03.05.2021].

¹³¹ Cf. Long (2018), online source [23.02.2021].

¹³² Cf. Jachtchenko (2020), p. 51 f.

searching essential information. In this context the opinions of the authors differ significantly with regard to content and structure.¹³³

However, according to Deloitte, a CMP should cover the following content and elements:¹³⁴

- Responsibilities and roles for key activities should be clearly defined.
- All crisis response functions and actions should be implemented.
- Smooth communication within the crisis management team, between the organization and employees, as well as the public must be ensured.
- An overview of the resources and tools needed by the crisis management team should be available.
- The interaction of the various departments and processes involved in crisis management should be defined.
- A central location (e.g. software) for all important documents, tools, templates and procedures should be defined.
- The crisis management team should be able to access the crisis management plan on short notice.

According to Lukaszewski, the response phase of crisis management requires answering several questions that help the crisis management team analyse the situation. These questions are:¹³⁵

- *“What issues, concerns, and problems does the situation raise?”*
- *What critical management decisions need to be made quickly?*
- *What are the potential consequences and implications of the decisions made?*
- *Who does what?*
- *What facts, circumstances, rumours, information, and reports need explanation or clarification?*
- *What information do we need to collect?”*¹³⁶

Regarding organisational preparation for a crisis situation, the crisis management team should be provided with the necessary resources. These include the designation of a meeting room, also known as the "war room". This room should be equipped with the following: computers with access to the Intranet and Internet, pin boards or flip charts, moderation cases with cards, paper and pens, projector, telephones, radio and television, protective clothing, lamps, radios, video and photo cameras for documentation.

¹³³ Cf. Mayer (2003), p. 160.

¹³⁴ Cf. Deloitte (2020a), online source [23.02.2021].

¹³⁵ Cf. Lerbinger (2005), p. 584.

¹³⁶ Lerbinger (2005), p. 584.

Furthermore, a printed version of the CMP should be available in the "war room" for the case that the online version is not available.¹³⁷

2.7.3 Development of a Crisis Management Plan

In order to quickly return to the original performance after a crisis has occurred, it is important for companies to think about possible scenarios in advance and develop measures. This enables companies to react quickly and improve their economic situation across the entire supply chain.¹³⁸ Therefore, the scenario technique provides valuable support for the development of a CMP. This technique enables the identification of crisis scenarios and can be used for the identification of global as well as company-specific scenarios. The latter refers to the specific initial situation from the company's point of view. The scope of application of this technique ranges from planning and strategy formation to the identification of threats and opportunities. Through the so-called process of pre-thinking, consisting of investigation, field definition, environment analysis, creation and bundling of projections, scenario creation and impact analysis, crisis scenarios can be determined, which form the basis for the creation of a CMP.¹³⁹

Besides, in order to develop a CMP, the 4-3-3 rule can be used. According to this rule, the creation of a CMP should be based on 3 aspects. Thereby, a plan covering each of the 4 main impact scenarios, considering the 3 phases of crisis management¹⁴⁰, and which in turn need to be developed based on 3 quality characteristics. For the aspect of the impact scenarios, creating plans for all possible crisis scenarios is not possible and reasonable. A good CMP should therefore be scenario neutral. However, it is possible to make a classification regarding the impact of the disruption on the company. The 4 impact scenarios are: *"loss of building or geographic region, loss of technology or telecommunication equipment, loss of resources (specifically people) or a pandemic related event, loss of a critical third party channel."*¹⁴¹ Finally, and in order to be useful in case of crisis, it is essential that the CMP is easy to understand, contains only relevant steps (no extraneous tasks) which are necessary to manage the crisis and has a comprehensive character. These aspects are also representing the 3 quality characteristics.¹⁴²

¹³⁷ Cf. Immerschitt (2015), p. 22.

¹³⁸ Cf. Kötritsch (2017), online source [03.05.2021].

¹³⁹ Cf. Möhrle/Müller (2005), p. 188 ff.

¹⁴⁰ Cf. Chapter 2.5.1.3.

¹⁴¹ Herrera (2018), online source [24.02.2021].

¹⁴² Cf. Herrera (2018), online source [24.02.2021].

2.8 The Crisis Management Team

An essential as well as challenging task of crisis management begins long before the actual crisis situation arises. This task involves identifying, recruiting, training and managing employees, colleagues and suppliers who are not only concerned with making sure things go right, but also trying to prevent and cope with a crisis when it occurs.¹⁴³ The so called crisis management team and the composition of the crisis team may be seen as a result of this task. In addition to developing, training and implementing the CMP, the task of the CMT is to make appropriate decisions during the crisis response phase in order to prevent or mitigate damage to the company and its stakeholders. In this regard, it is recommended that the members of the team be composed from the departments of law, security, public relations, quality control, as well as top management and thereby combining specific problem-solving and decision-making competencies.¹⁴⁴ Consequently, in addition to training and practice that affect how a team operates, the roles, responsibilities and a diverse background of team members are important factors to consider in order to manage a decision-making process under pressure.¹⁴⁵ The following table shows a comparison between the different proposals for team composition by Löffelholz/Schwarz, Immerschitt, Thießen and Tenckhoff/Siegmann. It can be seen that there are similarities between the different proposals in terms of departments and the number of team members.

Table 3: Comparison of different possible team compositions, Source: own representation.

Crisis Management Team Composition				
	Löffelholz/Schwarz Cf. Löffelholz/Schwarz (2008), p. 27.	Immerschitt Cf. Immerschitt (2015), p. 21.	Thießen Cf. Thießen (2014), p. 14.	Tenckhoff/Siegmann Cf. Tenckhoff/Siegmann (2019), p. 284.
Nr. 1	Top management	Top management	Top management	Top management
Nr. 2	Law	Law	Law	Law
Nr. 3	Security	Communication	Operational management	Company safety manager
Nr. 4	Public relations	Sales	Sales	Spokesperson
Nr. 5	Quality	Quality	R & D	IT
Nr. 6		Finance		Assistant (1)
Nr. 7		IT		Assistant (2)
Nr. 8		Personal		
Nr. 9		Environmental management		

At this point, it is necessary to clarify what a team is and how it can be defined. The simplest way to define a team is to describe it as a composition of at least two individuals. In the literature a distinction is made between the term "team" and "group." A group can be defined as two or more interacting and interdependent individuals who join together to achieve objectives. However, a team is more than a group, because in a team individuals are not only driven to achieve certain objectives, but, they are concerned

¹⁴³ Cf. Supovitz (2019), p. 271.

¹⁴⁴ Cf. Löffelholz/Schwarz (2008), p. 27.

¹⁴⁵ Cf. Clark/Harman (2004), p. 41 f.

about the outcome of the situation as a whole and see themselves as a social unit of the team. In addition, the members of a team are closely connected to each other and can be characterized by commitment and engagement.¹⁴⁶

As crisis management is primarily concerned with the efficient handling of a crisis situation, it is consequently the top priority of the CMT. Therefore it is important to think about the composition of this team in advance. As a general rule can be defined that the team should be as compact as possible, but as expandable as necessary. In some crisis situations, however, additional help from internal departments can be valuable. For this purpose, mandated persons of the management should be defined.¹⁴⁷ In fact, the most successful crisis management teams tend to be small and feature a simple authorization process, an executive on a full time basis, as well as strong financial capacity and a high level of decision making capability. In addition, the team must be able to make and implement decisions within hours rather than days, while simultaneously providing certainty to crisis actors and allowing those not directly involved in crisis management to carry out their tasks. To use external consultants as crisis leader is a common mistake due to the decreasing capability of motivating internal employees.¹⁴⁸

However, a precise number of individuals within a team has not yet been defined in the literature. In the existing literature, however, the number has settled at three to a maximum of eight team members. If the number of members is in this range, a formation of small groups within a team which could further lead to mutual distrust or even fighting, is prevented. In addition, in this range, each member has the satisfying feeling of being able to contribute something to the team's performance, which results in an increase in the motivation and commitment of each team members and an increase in the overall team performance.¹⁴⁹

2.8.1 Phases of Teambuilding

Each team is different, differently composed and also assigned different tasks. However, Tuckman (1965) describes with a model the phases that occur during almost all team building processes. The first phase of the model (Forming) is also representing the first meeting of the team members. This getting to know each other is often connected with uncertainty during which team members are often confronted with the questions of acceptance and development possibilities within the team. The relationships between the team members are still totally undefined and unclear in this phase. In the second phase

¹⁴⁶ Cf. Schjoedt/Kraus (2009), p. 514.

¹⁴⁷ Cf. Tenckhoff/Siegmann (2019), p. 283 f.

¹⁴⁸ Cf. Kalavar/Mysore (2017), p. 5, online source [24.02.2021].

¹⁴⁹ Cf. Busch/Oelsnitz (2017), online source [24.02.2021].

(Storming), after the initial uncertainties, team members try to define their territory through tasks and role conflicts. This phase, which may influence the entire work process of the team, poses a particular challenge, since dominant characters may conflict with each other here. Therefore, this phase should sometimes be accompanied by a moderator. After the conflicts have been solved, the team can grow together in the third phase (Norming). In this phase the focus is on establishing rules and jointly defining roles in the team. This subsequently contributes significantly to the success of the following work phase (Performing).¹⁵⁰ Tuckman, together with Jensen, added a fifth phase, called adjourning, to the original model in 1977, which describes the transformation or termination after the available time has expired or after the purpose of the team has been fulfilled. Here, either a redefinition of the purpose or the team structure occurs or the end of the team occurs. Since the members have often developed a strong sense of belonging through the shared experiences and the successful completion of the development cycles described above, the dissolution of the team may pose a problem for team members.¹⁵¹

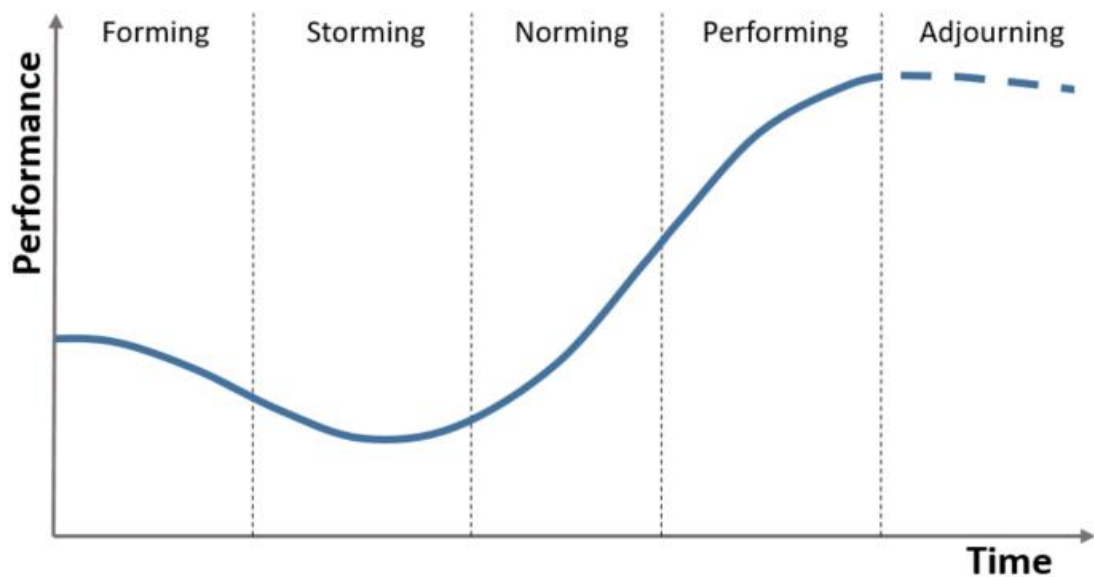


Figure 14: Phases of the Teambuilding Process (Tuckman Model), Source: own representation.

However, because the CMT has a major impact on the management of a crisis situation for an organization, it is important to ensure that the team is already in the performance phase when a crisis situation occurs, as this is the phase when team performance is at its highest.

¹⁵⁰ Cf. Tuckman (1965), p. 396 f.

¹⁵¹ Cf. Tuckman/Jensen (1977), p. 419 ff.

2.8.2 Hierarchies within Teams

Hierarchies, which describe the differences between members in terms of position and associated authority, form the basis when looking at groups and teams. Hierarchies might furthermore influence the performance and, by extension, the effectiveness of a team.¹⁵² Among the most commonly used forms of hierarchy in teams is the pyramid form, which gives individual members formal authority over all other members. This form of hierarchy can have both, advantages and disadvantages. For example, advantages include having a clear line of command and an incentive for members to perform well. However, disadvantages of the pyramid form can be the reduced ability to adapt to changing situations and to accept innovative ideas from lower positioned team members. These disadvantages are of particular interest for teams that are in an uncertain and ambiguous crisis situation, where decision making is considered especially important.¹⁵³

In order to better understand the complex relationships between different positions and the resulting dynamics within a team, the Austrian psychoanalyst Raoul Schindler developed the "Rank Dynamic Position Model" in the 1950s. With this model, which consists of five positions, he attempts to explain the interaction of individual positions in groups and teams of three or more people. In this context the relationships between the positions are referred to as "rank dynamics" and deal with power and influence as well as leading and following in the group or team. The basis of this model is the assumption that each team demarcates itself against an opponent, which is also representing the first position of the model. The four other rank position in this context are:¹⁵⁴

- **Alpha** position represents the team to the external world and is commonly referred to as the leader. It is also associated with team identification.
- **Beta** position, which can also be referred to as "the specialist", has expertise and is generally positively opposed to the alpha position. The Beta position is the only rank position that can remain unfilled in a team.
- **Gamma** represents the position of those who have committed to the Alpha as well as identify themselves with the pursuit of its goals and adopt the Alpha's will.
- **Omega** position represents the weakness of the group because it identifies itself with the opponent of the team. Omega opposes the common path of the team and moves in the opposite direction.

¹⁵² Cf. Greer et al. (2018), p. 592 f.

¹⁵³ Cf. Wellman et al. (2020), p. 998 f.

¹⁵⁴ Cf. Ameln/Gerstmann/Kramer (2009), p. 323.

2.9 Crisis - Danger and Opportunity at the Same Time

The meaning of the noun danger specifically describes the potential to cause harm to someone or something, while the term opportunity is defined as a situation that makes it possible to do something that one wants or needs to do.¹⁵⁵

According to a recent survey conducted in Austria on the subject of "personal economic disadvantages caused by the Corona crisis", a total of 49 percent of respondents believe that they will experience economic disadvantages over many years as a result of the Corona crisis. In contrast, a total of 41 percent did not fear this effect.¹⁵⁶ The economic and social consequences of a crisis depend on the situation. What is clear, however, is that the effects of a crisis can be severe. For example, the Corona crisis led to a so-called lockdown, where public life was completely shut down. This resulted in a decline in global trade of 15% compared to 2019.¹⁵⁷

However, in this context, the interpretation of the term crisis as a dangerous opportunity, as mentioned in chapter 2.1, allows a company to use a crisis situation to improve its company success and emerge stronger. How leaders structure the crisis management of a company has an impact on how a crisis is mastered. Providing transparency regarding which people are responsible and accountable in a crisis situation, sharing information rapidly, and providing comprehensible information about the next steps, which is communicated in an understandable way, contributes to enabling an organization to become more flexible, efficient, and responsive. Moreover, these are qualities that enable an organization to "bounce back" from a crisis even stronger.¹⁵⁸

In recent years not only scholars but also practitioners have begun to look at crisis situations and the potential positive aspects resulting from them. Whereby they repeatedly point out that a crisis is not always to be viewed only negatively and as an issue to be surmounted, but rather as an opportunity for positive development that allows companies to reinforce their business practices and improve their reputation towards their stakeholders, which subsequently might lead to an increase in the success of the company,¹⁵⁹ as can be seen in Figure 15.

¹⁵⁵ Cf. Cambridge Dictionary (2020), online source [14.03.2021].

¹⁵⁶ Cf. Statista (2021), online source [03.05.2021].

¹⁵⁷ Cf. Dany-Knedlik (2020), online source [03.05.2021].

¹⁵⁸ Cf. Bommel et al. (2015), p. 3 ff., online source [11.03.2021].

¹⁵⁹ Cf. Nikolaev (2010), p. 268 f.

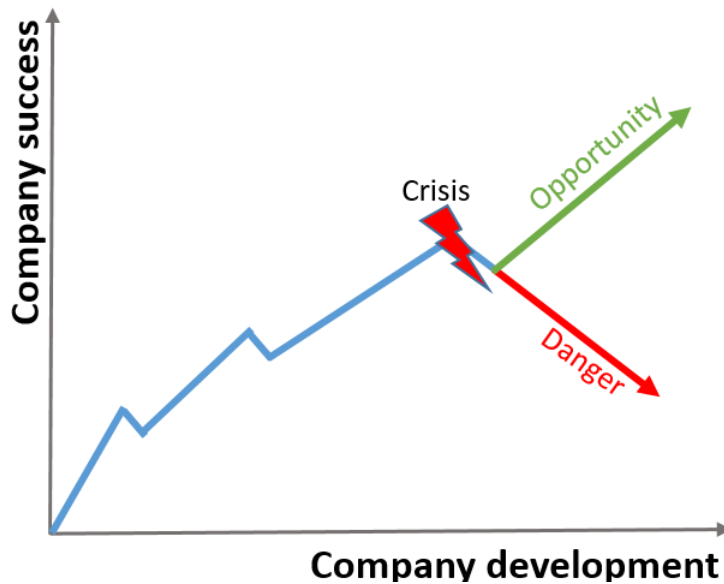


Figure 15: Crisis - Danger and Opportunity at the Same Time,
Source: adapted from Pachurka/Siegmann (2007), p. 12.

Based on an analysis between the years 2008 and 2019 of the 25 best performing companies, before, during and after the 2008 financial crisis, the Boston Consulting Group (BCG) was able to define five steps that enable companies to strengthen their position and emerge stronger from a crisis situation. These five steps are proactivity, increasing vitality, sticking to a clear vision, building resilience and streamlining the organization, which are explained in more detail below:¹⁶⁰

- **Act proactively** means that companies have to take action without letting much time elapse, in order not to be forced into a defensive position from in which it can only act reactively instead of proactively. Here, companies could follow the philosophy "fix it before it breaks".
- **Increase vitality** in this context means resisting the temptation to rest on laurels, since no success is permanent. Vitality can also be defined as the ability of a company to generate innovative ideas and to continuously improve and adapt corporate strategies in order to achieve long-term growth. This requires a consistent analysis of markets and concepts as well as existing development processes, which enables companies to remain adaptable and continue to grow, irrespective of changing market conditions.
- Even in the search for new sources of growth, **sticking to a clear vision** and the resulting goals is the key to success. The approach for achieving these goals must be adaptable, but the goals themselves must remain, so that the company continues to have the same clear focus.

¹⁶⁰ Cf. Faeste et al. (2020), online source [11.03.2021].

- The fact that future disruptions and crises are inevitable forces, companies ought not only withstand future shocks, but also anticipate them. For this purpose, scenario techniques¹⁶¹ can be applied, which **build** up or even increase the **resilience**¹⁶² of a company.
- **Streamlining the organization** means applying lean management processes that focus on eliminating all types of waste within a company, thereby increasing efficiency. In this context waste can be defined as activity that does not add value to the product or service of a company.

2.9.1 Opportunity Identification

The ability to identify opportunities is an essential skill to increase the output of ideas generated and the degree of innovation of ideas. It can further be defined as an important success factor that enables entrepreneurs and managers to identify opportunities for new businesses and to recognize opportunities that can help to achieve competitive advantages and increase efficiency within a company. Four ways of opportunity identification have been proposed in the literature, namely active search, passive search, fortuitous discovery and opportunity creation. Active search, passive search, and fortuitous discovery assume that an opportunity exists and that it is the task of the entrepreneur to discover it, whereas opportunity creation assumes that an opportunity is the product of a person's own mind. The competence of individuals to identify opportunities is in fact influenced by their prior knowledge, experience, and information regarding the specific area of interest for opportunity identification. In this regard, managers should have a good understanding of the external environment and be able to interpret it creatively.¹⁶³

The creative process of opportunity identification enables the generation of ideas, new information and knowledge, and transfer them into opportunities that provide an added value for the company. This approach represents an iterative process, because opportunity identification is not seen as a single event, but rather as a process in which insights and information are gathered and considered, and in which knowledge is generated over time. It consists of the two main phases of discovery and formation, which can be structured into a staged process consisting of in total five sub-stages, namely preparation, incubation, insight, evaluation and elaboration, which will be described in more detail in the following:¹⁶⁴

¹⁶¹ Cf. Chapter 2.7.3.

¹⁶² Cf. Chapter 2.4.

¹⁶³ Cf. Tienne/Chandler (2004), p. 242 ff.

¹⁶⁴ Cf. Lumpkin/Lichtenstein (2005), p. 457 ff.

- The **preparation** stage precedes opportunity identification and involves the development of domain-specific knowledge and gaining experience. In general, this process can be done consciously as well as unconsciously. Usually, however, this process is done consciously in order to be able to develop skills in an area or to become aware of an area of interest.
- The **incubation** stage is the part of the opportunity identification process that involves looking at a concept or specific problem that is not normally subjected to conscious or formal analysis by an entrepreneur or his or her team. This step is considered to be a rather intuitive, non-directive process of opportunity investigation.
- The **insight** stage occurs at the moment when a problem-solving idea is suddenly and unexpectedly recognized and is also known as the "aha" experience. It is a special moment that occurs repeatedly throughout the opportunity recognition process. In terms of a business, the recognition phase includes the sudden discovery of a business opportunity, a solution for a problem or an adaption of an idea from social networks and acquaintance circles.
- The **evaluation** stage represents the beginning of the second phase of the opportunity recognition process. It involves examining whether the ideas identified and developed are feasible, whether the entrepreneur and his team have the necessary skills to make the ideas become reality, and whether the idea is sufficiently innovative. It sometimes includes a full feasibility analysis as well as obtaining feedback from relevant business partners.
- The **elaboration** is the stage that includes the selection of options, a time-consuming external analysis and the organization of resources. It clarifies all legitimacy which can build the trust and guarantee the feasibility of the venture. It also reduces uncertainties through detailed planning activities and identifies the areas that need further analysis and attention.

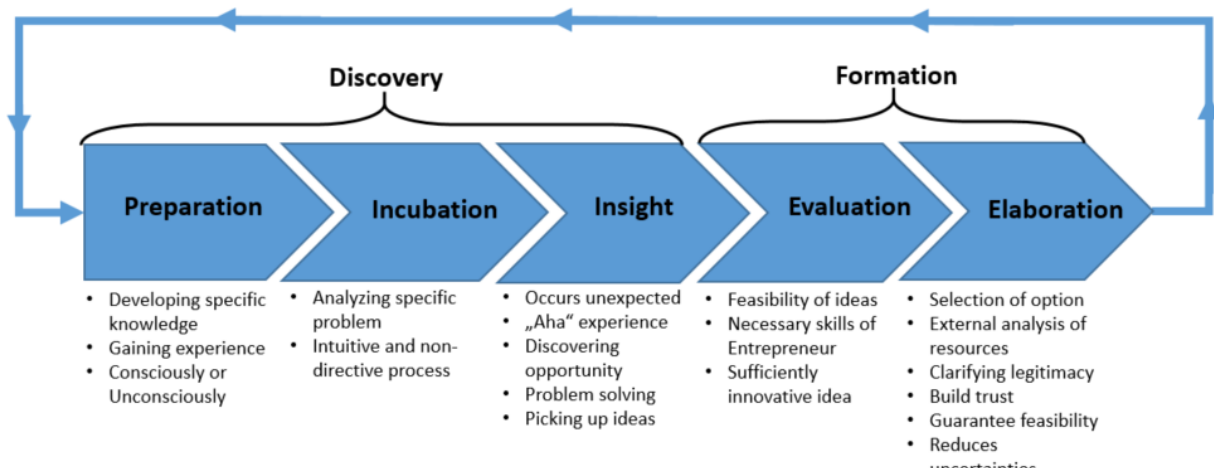


Figure 16: Opportunity Identification Process, Source: own representation

Opportunity identification, creativity, and entrepreneurship are closely related terms.¹⁶⁵ This is because creativity processes are used by entrepreneurs to identify new ideas and recognize opportunities that can then be put into further action. Therefore, creativity plays an important role in the opportunity identification process.¹⁶⁶ Creativity can be defined as "generating products or ideas that are both novel and appropriate"¹⁶⁷, and there are multiple techniques and methods that can be used to generate opportunities and ideas,¹⁶⁸ for example brainstorming and its variation, the circle of opportunity, the morphological box, semantic intuition, progressive abstraction and the 6 thinking hats method to name just a few of them. In the following the brainstorming and the circle of opportunity technique will be discussed in more detail.

Brainstorming

Brainstorming is the classical creativity technique and probably one of the most popular. This method is a group-based process consisting of six to twelve group members, a leader and a recorder, which can be used to generate alternatives and ideas.

SUMMARY OF STEPS	
1.	Select a group consisting of six to twelve people, a leader and a recorder.
2.	The leader defines the problem for the group, preferably in advance of the brainstorming session.
3.	The group suggests solutions to the problem in an interactive format, following the four rules of brainstorming: <ol style="list-style-type: none"> No judgments are made about any suggestion. All ideas, even absurd or impractical ones, are welcome. Quantity of ideas is a major objective, since it leads to quality. Ideas may be combined, refined, and piggybacked.
4.	After twenty-five to thirty-five minutes, the group takes a break and then returns to critique the ideas.

Figure 17: Brainstorming - Summary of Steps, Source: Higgins (1994), p. 123.

Brainstorming is an idea generation method invented by Alex Osborn in 1939. He named brainstorming after the idea of this method, which is "using the brain to storm a problem". The goal of this method is to generate as many ideas as possible in a short time, quantity over quality is the motto here. Certain rules are recommended for a successful brainstorming session, namely a maximum number of ideas should be generated in a minimum amount of time, criticism and correction of submitted ideas is forbidden, ideas can be combined and freely associated and all ideas are welcome, even ideas that are considered to be bizarre. The brainstorming process takes place in two phases. The first

¹⁶⁵ Cf. Corbett (2005), p. 475.

¹⁶⁶ Cf. Gielnik et al. (2011), p. 559 f.

¹⁶⁷ Hennessey/Amabile (2010), p. 570.

¹⁶⁸ Cf. Hennessey/Amabile (2010), p. 579 ff.

phase focuses on idea generation. Here, participants collect ideas through free association. They spontaneously name ideas for finding solutions, inspire each other and thus find new aspects for solving the problem. In the second phase, the results are then sorted and evaluated. Here, all ideas are sorted thematically, ideas that are far removed from the problem are sorted out, and ideas are evaluated for implementation.¹⁶⁹

Circle of opportunity

The circle of opportunity is an easy-to-apply method that generates ideas through so-called free association, in which problem attributes are randomly combined in order to generate new ideas and opportunities. Like brainstorming, this is a group-based method

SUMMARY OF STEPS
1. Define the problem—for example, developing a new product or refining an old one.
2. Draw a circle and number it like a clock from 1 to 12.
3. Select any twelve attributes of the problem (e.g., of the product or service) and list these in positions 1 to 12 on the “clockface.”
4. Throw a die or dice to determine the number of the first attribute to be worked on.
5. Individually or in a group, brainstorm, free associate, and/or mind map whatever thoughts about that attribute occur to you.
6. Continue rolling the dice until you have used all twelve numbers and worked on all of the attributes.
7. Make combinations of attributes, either by arbitrarily choosing combinations or by rolling the dice. Now brainstorm, free associate, and/or mind map those combinations.

Figure 18: Circle of Opportunity - Summary of Steps, Source: Higgins (1994), p. 71.

involving five to seven group members and was invented by Michael Michalko in 1991.¹⁷⁰ On the one hand, it is a rather time-consuming method, since each of the attributes is brainstormed individually first and then random combinations of attributes are brainstormed, however, it is very beneficial, since it helps to discover new meanings and new relationships in the generated ideas,¹⁷¹ as it is illustrated in figure 18.

2.9.2 Chance of Revitalization

Only some of the companies affected by a crisis are able to take advantage of the opportunity to overcome the crisis that has occurred and use it to revitalize the company in order to initiate a further increase in its vitality. Finding the way out of the crisis requires creativity, experience and a proactive, innovative, consequent, comprehensive and transparent crisis management. This enables companies to leave the downward path in

¹⁶⁹ Cf. Higgins (1994), p. 118 ff.

¹⁷⁰ Cf. VanGundy (2005), p. 123.

¹⁷¹ Cf. Higgins (1994), p. 71.

order to embark on a new growth path with vitality.¹⁷² Below figure 19 illustrates the success factors for crisis management.

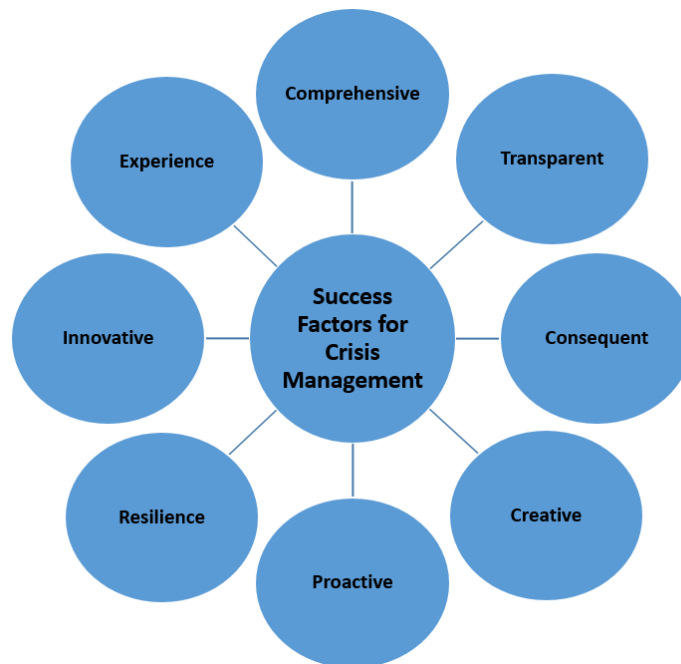


Figure 19: Success Factors for Crisis Management, Source: adapted from Steinberg (2006), p. 163.

Thereby, crisis events can create new forms, structures, processes, hierarchies and relationships that enable a system or organization to change and evolve into a more successful form. This paradoxical nature of a crisis event has enabled organizations to increase their resilience and responsiveness in times of crisis in order to survive crisis situations and initiate renewal. It can lead to the formation of new community-based norms and traditions, which subsequently contribute significantly to overcoming the crisis and returning to normality. Communication is, again, key in this process, as it acts as an actuator and accelerator for the renewal of an organization and enhances its reputation with all stakeholders. Furthermore, crises can create a form of commonality and cohesion that changes the climate and tone of communication between stakeholders, allowing them to communicate in a completely new way. Stakeholders can then demonstrate a high level of cooperation, creative problem solving and collaborative decision making.¹⁷³

The recent Covid-19 crisis brought fundamental changes to the conditions of communication that have created opportunities and possibilities for companies to increase efficiency and accelerate the adoption of new communication methods, for example working in virtual teams via video conferences and providing feedback to employees digitally. In addition, companies are increasingly relying on digital idea

¹⁷² Cf. Steinberg (2006), p. 163 ff.

¹⁷³ Cf. Seeger (2002), p. 333 ff.

generation systems, e-learning and home office in order to cope with the changing conditions of the crisis. However, such alternatives also have disadvantages, which makes it necessary to pay attention to some important factors when new communication methods are applied.¹⁷⁴ These changes and opportunities will be discussed in more detail below.

Video conferencing

Communication in video conferences via digital platforms has changed significantly compared to face-to-face meetings and has become more difficult, as the personal communication level between the participants has been removed. Communication between people has many more messages than just the content of a message. Body language, facial expressions, gestures and other atmospheric elements provide additional information and are at risk of being lost virtually, and this leads to an increase in misunderstandings. Nevertheless, they can be useful alternatives to face-to-face meetings and also bring advantages. For instance, virtual teams can become a competitive advantage for companies due to significantly reduced travel costs and the ability to hold team meetings at short notice with people who are not in the same place or time zone, which can increase efficiency and shorten the decision making process.¹⁷⁵ Furthermore, the reduced traveling and the associated reduction in CO2 emissions have a positive impact on our environment. It should be mentioned that the goal is not to completely avoid or prohibit traveling, but rather to increase the awareness of companies to protect the environment and to think about alternatives.¹⁷⁶

Giving feedback digitally

One digital form for employee feedback is the answering of employee questions via the intranet by the CEO or responsible department manager of a company. This gives employees the opportunity to view questions and answers from other employees, which in turn leads to an improved level of information among all employees. However, employee interviews and office hours become digitally impersonal and should be avoided.¹⁷⁷

Digital idea generation and e-Learning

In general, but especially in times of digital change and crisis, it is of particular interest for companies to be able to generate ideas and suggestions for improvement from

¹⁷⁴ Cf. Engelhardt (2020a), p. 8 ff.

¹⁷⁵ Cf. Triest/Ahrend (2019), online source [23.03.2021].

¹⁷⁶ Cf. Trawnicek (2020), online source [23.03.2021].

¹⁷⁷ Cf. Engelhardt (2020b), p. 11 f.

employees. The company suggestion scheme and the continuous improvement process can be mapped via the intranet, and awards for good ideas can be presented digitally.¹⁷⁸

When it comes to employee training and learning activities, companies find themselves in a conflicting situation in times of crisis. On the one hand, there is a lack of financial resources to invest in further training measures for employees, and on the other hand, well-educated employees have a significant influence on the future success of a company.¹⁷⁹ In this context, e-learning can be used as a method to effectively teach knowledge and is also applicable via home office.¹⁸⁰

Home office

Companies were forced by the occurrence of the Covid-19 crisis to use broad-based home office work in order to ensure the existence and continuity of the company and to keep the business running. This allows companies to recognize and take advantage of the benefits and opportunities of this model and makes them aware that work no longer has to be linked to a specific location. Furthermore, it gives companies the chance to prepare for future-oriented work models and to act early in order to be prepared for the future.¹⁸¹ A recently published study by Deloitte indicates that more than 80% of 300 Austrian companies surveyed will make greater use of home offices in the future, after Covid-19.¹⁸²

As a consequence of the collective use of home offices, a change from the previously common form of face-to-face work toward new work as the working method of the future is recognizable. New work is characterized by flexible work arrangements, virtual work and work-life blending (merging of the living world and the working world) and is a win-win situation for both, employees and employers. The employees benefit from an increase in individual flexibility, room for action and freedom, which means for the employers higher employee satisfaction, motivation and performance, resulting in increased productivity.¹⁸³ Additional benefits for companies are that they can save office space by having employees in the home office, and that the implementation of home office opportunities in job descriptions is particularly attractive for job seeking employees, which represents an immense potential for companies in recruiting and attracting new personnel.¹⁸⁴

¹⁷⁸ Cf. Engelhardt (2020a), p. 9 f.

¹⁷⁹ Cf. Wirl (2021), online source [23.03.2021].

¹⁸⁰ Cf. Engelhardt (2020a), p. 10.

¹⁸¹ Cf. Trawnicek (2020), online source [23.03.2021].

¹⁸² Cf. Deloitte (2020b), online source [23.03.2021].

¹⁸³ Cf. Umbs (2020), p. 271.

¹⁸⁴ Cf. Kontio (2017), online source [23.03.2021].

However, home office also harbors dangers, as working exclusively virtually without any interaction can often be perceived as lonely and isolating.¹⁸⁵ Furthermore, the shift from work-life balance to work-life blending leads to a blurring of the boundaries between work and leisure time, which can have a negative impact on the mental health and stress levels of employees and managers. The lack of physical separation between the workplace and leisure areas also makes it difficult to switch off after work, which requires a high degree of personal responsibility and self-discipline.¹⁸⁶

2.9.3 Designing the Future

As examples from current Covid-19 crisis and past crises show, it is not only the handling of situational changes in the short and long term that is decisive for the short term success of a company, but also for its long term success.¹⁸⁷ Regardless of the fact that crisis periods have an influence on the short and long term success, research shows that company responses to economic downturns are often defensive and delayed, and therefore perceived as inadequate. The results of a survey conducted by the Boston Consulting Group (BCG) during the 2007-2009 downturn showed, that most of the 439 global companies surveyed, favored short term actions over longer term initiatives. The companies were hesitant to take proactive measures to position themselves best for the future and therefore found themselves in a rather defensive position.¹⁸⁸

However, being prepared for the future does not only intend to master the crisis, but also actively shape the future in general and be prepared for various crises, or as Abraham Lincoln stated, “The best way to predict the future is to create it”¹⁸⁹. The planning of the future is thereby covered by strategic management and the basic function of planning is to create future room for action by reducing the uncertainty about future events. Krystek summarizes the opinions of various authors and states, that crises can be more easily managed or even prevented through planning. However, since crises have the characteristic of being unpredictable, it is important to recognize signals and practice crisis management at an early stage, because at early stages, the crisis impact on the organization may still be controllable.¹⁹⁰

According to Kotter, crises offer opportunities, because even in the difficult situation in which many companies find themselves, there is a chance to finally initiate the necessary

¹⁸⁵ Cf. Lengen et al. (2020), p. 63 f.

¹⁸⁶ Cf. Umbs (2020), p. 271.

¹⁸⁷ Cf. Lanzer/Sauberschwarz/Weiß (2020), p. 6.

¹⁸⁸ Cf. Reeves et al. (2019), online source [26.03.2021].

¹⁸⁹ Cf. Martin et al. (2015), online source [27.03.2021].

¹⁹⁰ Cf. Krystek (1987), p. 112 f.

changes that will enable an organization to be successful in the future.¹⁹¹ According to Christian Schmidkonz, change offers the opportunity to question established processes and future plans, which enables companies to emerge stronger from a crisis. In this context, it is important to align actions with different values in order to enable a sustainable future for everyone. Therefore, future-oriented and innovative trends, such as digitalization and cross linking, are needed to solve the major challenges of humanity.¹⁹²

A study, conducted by Arthur D. Little on behalf of Cisco and in collaboration with the Austrian Federal Ministry for Digitalization and Business Location, in which 50 top executives and stakeholders were surveyed, shows that digitalization is a key success factor in overcoming a crisis. In the response phase of the covid-19 pandemic, in which it was necessary to maintain business operations and make quick decisions, a digitalization push occurred and companies that built on existing and established digitalization initiatives had a clear advantage in overcoming the crisis. These short-term measures implemented due to the crisis, must now be transformed into future-oriented and long-term digitalization strategies.¹⁹³

If companies are able to successfully overcome the change process induced by the crisis by taking appropriate measures, the crisis can be overcome and energy can be released for future growth.¹⁹⁴ This is because from a neurobiological perspective, adrenaline is replaced by dopamine when a critical situation is overcome. Dopamine opens brain synapses and makes people eager for what is coming, and a healthy level of dopamine leads people to develop new plans and visions, as well as a forward-looking action. This is how the loss of control changes into a regular rush of positivity and people and companies have experienced this in times of the pandemic.¹⁹⁵

For successful crisis management, it is not only necessary to eliminate the symptoms of a crisis, but also its cause. In order to ensure this and to increase the commitment and reputation towards all stakeholders of a company, an open and transparent communication style is necessary. Successful crisis management leads to the end of the crisis management process as soon as a vitality boost for the company begins, when the future-oriented strategy has been implemented and the company management

¹⁹¹ Cf. Kotter (2008), p. 119 ff.

¹⁹² Cf. Seitz (2020), p. 7 ff.

¹⁹³ Cf. Taga et al. (2020), p. 6.

¹⁹⁴ Cf. Lanzer/Sauberschwarz/Weiß (2020), p. 11.

¹⁹⁵ Cf. Horx (2020), online source [27.03.2021].

succeeded in communicating a vision,¹⁹⁶ “which perceives the crisis as an opportunity and lights the beacon for the route of a company into the future.”¹⁹⁷

¹⁹⁶ Cf. Steinberg (2006), p. 165.

¹⁹⁷ Steinberg (2006), p. 165.

3 Literature Recap and Derived Research Question

In this chapter, a summary of the basic literature on crisis management is provided. Building on this, the objectives of this thesis are further refined by defining a research question.

3.1 Summary of the Basic Literature

The theoretical part of this master thesis illuminates various aspects that are relevant for the development of a crisis management strategy and a crisis management plan. Furthermore, it provides an overview of different perspectives that have an influence on transforming changes into opportunities. As stated in the beginning, crisis management is inevitable for companies when making decisions in a crisis situation to avoid or reduce damage to the company. The terms resilience and agility are frequently used in connection with the management of uncertainties that a crisis can bring. In this context, the term resilience describes the impact on the performance of a company after the occurrence of a disruption. Within the chapter 2.5 "Elements of Crisis Management" a characterization of crisis management, in process, institution and system is made, which allows to grasp crisis management in its entirety. One key takeaway however is, that a crisis management model requires describing the importance of a living CMP and considering crisis management as a continuous cycle. In order to satisfy the need of stakeholders for information and to gather and analyze knowledge, which forms the basis for decision-making in a crisis situation, communication is also key in crisis management, especially in the crisis response phase. However, in order to be able to react quickly and efficiently and to keep the increasing pressure for making decisions to a minimum, a CMP, which can serve as a guide, must be in place. The CMP should include clearly defined responsibilities, communication structures and resources. Regarding the CMT, it is necessary to compose the team before the actual crisis situation occurs, because the phase in which the team is in the team-building process, will have an impact on the team's performance. The last chapter 2.9 "Crisis - Danger and Opportunity at the Same Time" deals with general requirements for companies and their crisis management in order to take opportunities and increase the success of the company. Successful crisis management is achieved when a vision is communicated that perceives a crisis as an opportunity.

By summarizing the basic and current developments in crisis management, subgoal one of the thesis can be considered as accomplished. To serve the most value for Magna Presstec, the contents mentioned in the basic literature part are supplemented in chapter 5 by practical data and information.

3.2 Research Question

As a result of the analysis of the basic literature on crisis management, the following research gap and its derived research question could be identified.

With appropriate management, the potential damage of a crisis can be minimised and even used as an opportunity for future business. However, crisis management must be tailored to the organisation and its specific requirements. In the literature, there are recommendations regarding the requirements that need to be in place in order to effectively shape crisis management for companies. Specific requirements for crisis management in the automotive supply industry have not yet been sufficiently identified. Therefore, the research question and the related subquestions for this thesis can be defined.

Research question: What are specific crisis management requirements for companies in the automotive supply industry?

- How should a crisis management plan look like?
- Which persons, steps and triggers should appear in it and how should it be developed?
- How could companies transform changes into opportunities?

4 Methodology

Within this chapter the complete study design consisting of the five different parts namely the information need, the research method, the sample selection, the survey instrument and a specific planning of the field work will be covered.

4.1 Information Need

In order to fill the previously mentioned research gap and to create a valuable crisis management plan for Magna Presstec including the derivation of opportunities resulting from changes due to a crisis, insights must be gained from current crisis management approaches. To achieve this, primary research must be conducted. When looking at the main insights to be gained through the primary research, company representatives and experts within this field are to be asked, how they dealt/deal with a crisis and connected changes, based on the very recent example of the COVID-19 pandemic and other crises.

The first part of the survey focuses on crisis management, which might be further on structured into four different blocks, such as the interviewees' specific approach in managing a crisis situation, structure and content of a CMP, crisis communication and the composition of the CMT. Secondly, the crisis as an opportunity is in the centre of attention, because it delivers potential by deriving opportunities from a crisis and transform them into competitive strengths in the aftermath. The second part of the survey will be divided into two blocks, namely the changes resulted from the Covid-19 and other crises, as well as potential opportunities due to a crisis situation.

These six blocks of the survey are conducted both internally at Magna Presstec and with external company representatives and experts (see table 5 for more details).

Table 4: Structure of the Survey,
Source: own representation

Block	
1	Managing a crisis situation
2	Crisis management plan
3	Crisis Communication
4	Crisis Team
5	Changes
6	Opportunities

4.2 Research Method

As already mentioned above, a primary research will be executed, since this topic is recent and the data from secondary research might not be sufficient. However, within market research it is also possible to do secondary research. The main distinguishing criterions between primary and secondary research are the way of data collection and the data material used. Those two approaches, however, shall not be considered competing, but rather complementary.¹⁹⁸

For secondary research (desk research) existing data material, which has already been collected for another purpose is compiled and analysed.¹⁹⁹

Primary research (field research) on the other hand describes the process of gaining original data material tailored to the specific problem of the executor. The collection of data material is generally constituted by conducting interviews and/or observing.²⁰⁰

In the field of primary research another distinction can be made between quantitative and qualitative market research. A quantitative research is characterized by relatively big sample sizes using the procedure of descriptive and inductive statistics. In contrast to that, qualitative research relates to the compilation of personal data based on psychological and sociological content.²⁰¹

Qualitative survey methods are applied, in the following cases:²⁰²

- Causes of behaviour
- Motives and correlations
- **Idea generation (stimulation of creative processes)**
- **Identification of relevant influencing factors with low level of knowledge**
- **Rough selection from several alternatives**

The three last statements are relevant for this survey design, since ideas regarding a new CMP, the current knowledge of the interviewed company representatives and experts as well as a broad spectrum of different alternatives concerning changes and opportunities should be identified.

According to the qualitative research, there exist four different survey types: individual interview, group discussions, qualitative observation and online tools.²⁰³

¹⁹⁸ Cf. Magerhans (2016), p. 63.

¹⁹⁹ Cf. Magerhans (2016), p. 63.

²⁰⁰ Cf. Magerhans (2016), p. 67.

²⁰¹ Cf. Runia/Wahl (2017), p. 45.

²⁰² Cf. Oberzaucher (2012), p. 24 f.

²⁰³ Cf. Oberzaucher (2012), p 25 ff.

As company representatives and experts in the field of crisis management will be consulted, individual interviews with a semi structured interview guide are considered to be the most suitable method.

4.3 Sample Selection

In order to gain holistic insights from different perspectives, the interview partners are selected by using the mixed sampling method. Within this method, the selection of interview partners is based on heterogeneous and homogeneous characteristics.²⁰⁴ In the course of this work, the heterogeneous characteristics represent the Magna Presstec internal and external company representatives, whereas the homogeneous characteristics represent the affiliation of all interview partners to the automotive supply industry. In addition, and to generate insights from selected specialists, interviews are conducted with industries other than automotive and consultants. The total number of interview partners sum up to 14. The interview partner selection is visualized in table 5.

4.4 Survey Instrument

As individual interviews are planned, they will be upheld face-to-face or via an online meeting platform (e.g. WebEx, Teams, etc.), if the current conditions do not allow personal meetings. After having conducted the interviews, they will then be transcribed and analysed via the tool MAXQDA.

4.5 Planning of Field Work

After the basic literature part has been completed, the interview guide will be elaborated. According the project plan, the interviews will be executed afterwards, in calendar week 15 - 18.

Table 5: Sample Selection - Interview Partners, Source: own representation

Mixed sampling method		Homogeneous characteristics:			
		Name	Position	Focus	Date of Interview
Heterogeneous characteristics:	Magna Presstec Internal	Sample 1	CEO	Manufacturing of stamping & welding parts	16.04.2021
		Sample 2	CTO		16.04.2021
		Sample 3	CHRO		14.04.2021
		Sample 4	COO		15.04.2021
		Sample 5	QM		16.04.2021
		Sample 6	CIO		13.04.2021
	Magna Presstec External	Sample 7	Global Product Line Director - Actuators	Manufacturing of Mirror Systems	04.05.2021
		Sample 8	CEO	Manufacturing of Lighting Systems	17.04.2021
		Sample 9	CHRO	Manufacturing of various products for the engine & automotive sector	26.04.2021
Additional Interviews with selected specialists					
Other Industries	Packaging	Sample 10	COO	Manufacturing of cardboard packaging	06.05.2021
	Tourism	Sample 11	CEO	Hotel	29.04.2021
	Military	Sample 12	Head of Division for Operation and Training		03.05.2021
Consultanting Companies	Company 1	Sample 13	Managing Partner	Interim Management	23.04.2021
	Company 2	Sample 14	CEO	Financial optimizations	23.04.2021

²⁰⁴ Cf. Schreier (2011), p. 253.

5 Findings From the Field Study

As the interview guide was separated into six blocks (see appendix for interview guideline), the insights from the specific interviews are also clustered within those blocks. It will be distinguished between the results from the three different types of interviewees: participants of the crisis team at Magna Presstec, participants of the crisis team at an automotive company and consultants and/or crisis team members of other companies not belonging to the automotive industry.

5.1 Managing a Crisis Situation

In this specific block the questions focused on the current approach of the interviewees concerning crisis management. Furthermore, certain requirements but also problems of crisis management were investigated as well as the first steps taken at the beginning of the COVID-19 crisis and other crises. Lastly, in order to ideally cope with a crisis, different risks were retrieved.

Crisis Management Approach

Within the internal interviews at Magna Presstec it was stated that it might be important to **identify the crisis** at first. Later on it is necessary to **analyze the situation, set steps and allocate tasks**. During the crisis the whole **team needs to gather** and new to-dos have to be assigned, but what is crucial hereby is that the participants within the team are from different departments and have different responsibilities within the company. In the automotive industry, there is the **IATF standard**, which helps to evaluate and assess foreseeable risks and thus covers the area of risk management. However, within crisis management, key is the **communication**, either within the team or to the employees in order to informing them about next steps. It is crucial that employees know where the company is heading to, which also reflects the next quote:

“And with all these things you must not forget to communicate to the next level - to the entire staff, because they also ask themselves questions and need to know where the ship is sailing to.”²⁰⁵

An existing communication network can be helpful in generating information. Furthermore, it was also mentioned that one success factor could be **outsourcing**, which means that the company accepts orders that cannot be handled in-house due to limited production capacity and therefore outsources them to contract manufacturers. In times of crisis, these can then be insourced to stabilize capacity utilization.

²⁰⁵ Sample 2, individual interview 16.04.2021.

As well as within the Magna Presstec internal interviews, it was found in the other interviews with peers in the automotive industry, that it has to be **defined what a crisis is**, information needs to be gathered, a crisis team needs to be formed and first steps need to be made. Here also the IATF standard in the automotive industry, was named twice. A rather new and interesting insight was to always **focus on the outside** and then adapt to the developments on the market. This approach should be anchored in the strategic principle of the company.

Additionally, the consultants and members of companies in other industries came to some similar conclusions, such as that a team has to be defined and the situation has to be analyzed. What was somehow new was that the **strategic orientation** is important for the outcome of a crisis situation and the steps the company takes in order to be successful in the long term and sustainable, which is a rather **future-oriented approach** to the whole crisis management. After the crisis has been overcome it is necessary to **review** the crisis management and analyze the coping style during the crisis.

The main conclusion drawn from this specific question is that a strategic and also operative approach is needed for crisis management. So the strategic approach might include rather future-oriented topics and the operative one needs to be set up like a step-by-step guide mentioning when the team must be convened, that the situation must be analyzed and which actions must be made.

Requirements for Crisis Management

First of all, concerning the Magna Presstec internally executed interviews it was stated that the **dealing with the topic crisis** is one requirement for crisis management. Additionally, the subject **change** has to be **anchored** within the **company culture** since crises often ask for changes within the company. Another point worth mentioning is the right **preparation** that can help handling unpredictable crises and even focus on improvement potential arising through this crisis. The importance of preparation also reflects in the following quote:

“The further you look ahead and think, what could we do when this comes, the calmer you are in the water.”²⁰⁶

Since a crisis can happen any time, it might be vital that everybody knows what to do if it occurs so that the whole process of crisis management is **independent of persons** and can be **undertaken rapidly**. High **flexibility** is another factor influencing the outcome of a crisis therefore this is also a requirement a company needs for crisis management. This could be achieved in terms of personnel through job rotation.

²⁰⁶ Sample 1, individual interview 16.04.2021.

During the interviews with representatives of companies in the automotive industry one requirement was that the **crisis management team** needs to **accept the challenge**. Also **trainings** are necessary to bring the employees up to speed and prepare them for a crisis situation. Specific communication rules are required to be elaborated so that there arise no misunderstandings:

“That's why it's important to have clear rules for communication, who talks to whom so that there are no misunderstandings.”²⁰⁷

Similar to the Magna Presstec survey, also the consultant(s) and company representatives said, that at first it has to be defined what a crisis is and how it is triggered. However, the **goal** of the crisis must be specified, so that the crisis team knows what they want to reach and where they want to stand at the end of the crisis. Hereby again preparation was stated by two interviewees, saying that a **crisis management plan and risk management** is favorable for managing a crisis. **Time** is another prerequisite during a crisis since solutions might need to be found rather quickly and a time horizon should also be in place.

In terms of requirements for crisis management the key finding for this thesis was that the employees must deal with the topic crisis and change before this critical incident is reached. For this a structured approach and preparation is essential in order to cope with this situation successfully.

Problems in Terms of Crisis Management

There are certainly many different kinds of problems occurring within a crisis, however at Magna Presstec internally **the information deficit** as well as **increasing cost pressure** due to a reduced turnover were mentioned. Resulting from this information deficit it was **difficult** for the crisis management team to **make the right decisions** and **communication problems** complicated the whole situation once more. Furthermore, it was difficult to maintain the **production** capacity during the COVID-19 pandemic because some employees could not adapt to the changed situation flexibly, which resulted in inefficient production.

Two representatives of other companies in the automotive industry stated that they had problems finding the right decisions during the crisis. Moreover, as there was a shortage in raw material during the pandemic **problems in capacity planning** arose.

Amongst the additional interviews with consultants and other companies it became obvious that communication problems as well as the rising cost pressure might be rather

²⁰⁷ Sample 7, individual interview 04.05.2021.

common in crisis situations, since this was also mentioned by Magna Presstec internally. However, the trouble of **employees resisting** to go along with the **change** was a new insight here.

In conclusion, it became obvious that the main problem occurring through the crisis is the uncertainty to make the right decisions, which might be resulting due to a lack of information. Since many members of the CMT have never handled a crisis situation yet, they were often uncertain whether they made the right decisions. This, however, did not only result from the lack of experience but also due to a scarcity of information.

Potential of Improvement in Terms of Crisis Management

A surprising fact in the survey with the Magna Presstec crisis team was, that two members said, that there are **no specific possibilities for improvement** and that they did manage and are managing the crisis rather well. However, in the other interviews some potentials became obvious, for example to define and improve the **communication structure** and to **spread the information** e.g. the current situation of the company and where is it heading much broader to the whole team. Apparently, the crisis management approach was also not enough **independent on the persons**, this is another possibility for enhancement. And lastly the blue-collar workers in the production need to be trained to react more **flexibly** through, for example, job rotation.

Within the same industry but outside of Magna Presstec it was found that the **capacity planning** needs to be more long-term so that the supply can be guaranteed. If possible, some **contractual agreements** should be concluded with customers, so that the company might not be held viable if shipment delays happen. Hereby again communication was seen as an aspect that could need some improvement, but also the development, training and adaption of a **crisis plan**.

Company representatives other than those from the automotive industry did not mention any potential for improvement.

In conclusion, throughout the interviews communication was often mentioned as being developable. This does not only concern the internal communication within the CMT and to employees but also the external stakeholders. A communication structure therefore might be rather helpful reducing the amount of misunderstandings and inefficient communication.

Crisis Types/Risks/Scenarios

During the interviews with the employees at Magna Presstec many different kinds of crisis types, scenarios and risks were stated. In the figure below all those types are illustrated, whereas the bigger the word the more often it was named during the interview.

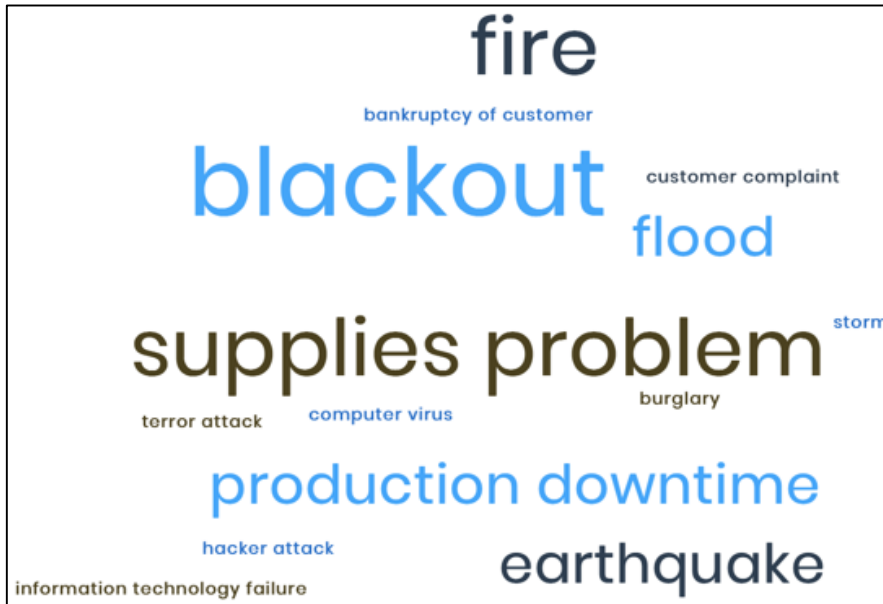


Figure 20: Risks - Magna Presstec internal, Source: own representation.

As these different types were also investigated amongst the representatives at other automotive companies, their answers are also summarized in the following word cloud.



Figure 21: Risks - other automotive companies, Source: own representation.

Lastly, the same has been done for the results from the consultant interviews and the ones with crisis team members in other industries.

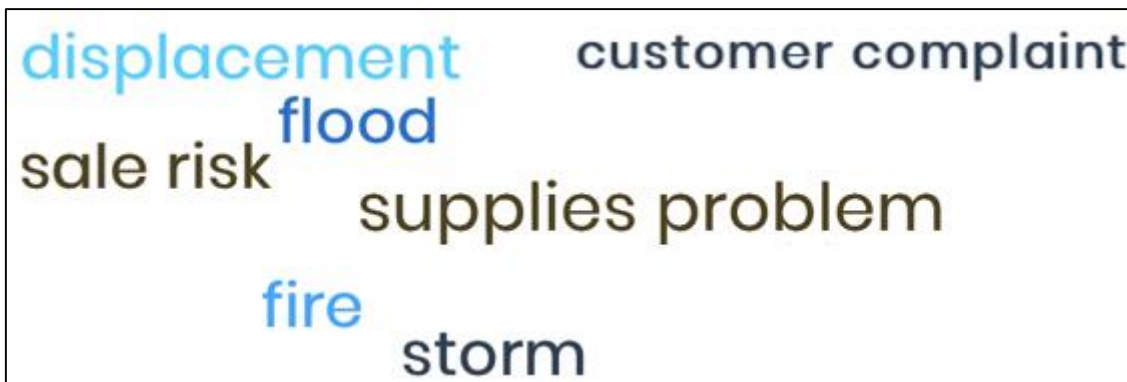


Figure 22: Risks - consultants and other industries, Source: own representation.

The overall conclusion that can be drawn from this question is that the majority is not aware of the difference between a foreseeable risk such as a fire, storm or supplies problem and an unpredictable crisis. Due to a crisis a company's existence is in danger which does not necessarily apply for a risk.

Important Steps After Crisis Outbreak

The answers according to the crucial steps are rather similar to the ones concerning the crisis management approach. From an internal perspective it is therefore necessary to **set up** and/or **convene** the crisis management team if already existing. Within Magna Presstec the **crisis management team** was also **extended** from 10 to 40 people. After that **analyzing the situation** and the **impact** of the situation was done. Then the **tasks** need to be **distributed** within the crisis team. In order to also **inform the employees** too, it is necessary to keep them up-to-date on the current situation and developments within the company. However, also the **communication to external stakeholders** and primarily to customers, suppliers and other partners is rather important. Lastly, they **increased** their **stock**, so that they dispose over a higher responsiveness when it comes to customer orders.

The first step of forming and gathering the management team was mentioned twice within the interviews of other company representatives in the automotive industry. Another aspect worth mentioning might be to **lay down ground rules** or **principles** that give guidance on what to focus on (e.g. healthy people, healthy company).

Amongst the additional surveys internal communication was named as well, but a crisis was also found to be useful to **reduce employee costs**, because by making people redundant, high expenses of the company can rather quickly be decreased.

The most important steps after a crisis outbreak are to convene with the CMT, analyse the situation, set action and communicate. This must be part of the operative approach in which the different steps are defined in more detail.

5.2 Crisis Management Plan

Within this block the interviewees were asked what they thought about a crisis management plan and if they see necessity in having one and what content should be comprised in it.

Pre-defined Steps in a Crisis Management Plan

Since a crisis is a rather great challenge, a **checklist** might be helpful as a guide, however if it deals with unpredictable crises it should be a rather **generic guideline** with steps, recommendations and key points. A detailed CMP might not be in favor, which the following citation shows:

"I don't think that a detailed crisis plan, especially for a crisis that has not occurred so far, at least not in the last few years, makes sense."²⁰⁸

For risks that are more foreseeable the CMP may be more detailed, but it must still be designed **simply** so that everyone understands it and it is **people independent**. In addition to that the plan should be rather **flexible** and easily **adaptable** in order to ensure **quick responsiveness**. In general, it was said that the CMP should include the **team, responsibilities**, a definition of a **crisis** and how the communication and **information flow** needs to be designed. Here it needs to be pointed out, that all Magna Presstec crisis team members are sure that a CMP has a positive impact.

On the other hand, it was mentioned twice during the interviews with peers in the automotive industry that there is no need for a CMP with pre-defined steps. However, two others said that it does have a positive impact, so there is a tie. Regarding the steps one interviewee said it is crucial to define **generic steps** and another one said that these steps need to be **precise**, so there is a contrast. Anyways, if there is a CMP existent, it must include the **communication structure**, for example to customers and suppliers and this plan is necessary to secure the **quality** and **speed of response**.

Within the interview with the company representatives from other industries and consultants the answers were quite similar to ones from the other fields. Still, it was said that a CMP needs **training** and **creativity**. Two of the five respondents also claimed that they do not regard a plan with predefined steps as useful. The other three, however, said that it might be advantageous to have such a plan.

The overall conclusion here was that the CMP should not be too detailed in order to ensure flexibility, creativity and responsiveness.

Existence of a Crisis Management Plan With Pre-defined Steps

At Magna Presstec they do have emergency plans for predictable risks according the IATF norm, yet a strategic CMP does not exist.

Three respondents within the automotive industry claimed that they also have a plan for foreseeable risks that fulfill the IATF norm.

Within the interview with the company representatives from other industries it was mentioned once that crisis management plans exist because they are required by insurance companies. However, no such plans are existing in the tourism industry.

It can be concluded that even though Magna Presstec claims that they have a CMP, it is not obvious to them, that the IATF norm only considers foreseeable risks. Therefore,

²⁰⁸ Sample 8, individual interview 17.04.2021.

within the elaboration of the crisis management concept it has to be distinguished between risks and crises, so that the team can use the already existent emergency plans for risks and the CMP for crises.

Content of a Crisis Management Plan

According to the Magna Presstec employees, a CMP should comprise a **goal** and a **definition at what stage it is considered a crisis** in contrast to a mere problem.

Contact persons, responsibilities and the crisis team members should be included as well as the **identification of possible opportunities** and **specific steps and measures**. The rest of the insights from both, the internal and also the external interviews within the automotive industry have already been mentioned in the section “pre-defined steps in a crisis management plan”.

Hereby the inputs of the different interviews somehow overlap. The consultants and people within other industries, for example, also stated, that goal setting is crucial as well as the definition of the team/contact persons and when it is considered a crisis, which is underlined by the next statement:

“At the beginning it is important to define what is a crisis, because if something goes wrong doesn't mean I'm in a crisis.”²⁰⁹

What was new is that the crisis team must be reminded that **people are in the center** and this has to be taken into account for every single measure within the CMP. Additionally, it was said that a **cost overview** could be part of the whole plan but also the **needed resources**.

As already mentioned beforehand, the CMP needs to include many different kinds of information such as the definition of a crisis, a goal but also the identification of possible opportunities. This, however, might only be included in the strategic section since at the outbreak of the crisis there is no time to think of possible opportunities that arise through this incident, but rather focus on quick decisions.

5.3 Crisis Communication

As communication is certainly key, this field was inspected closer to identify which essential aspects of crisis communication are necessary and how it is handled in practice.

Role of Communication in Crisis Management

From an internal perspective at Magna Presstec the majority found that communication is important to **spread information** and satisfy the **information need** with all

²⁰⁹ Sample 12, individual interview 03.05.2021.

stakeholders such as employees, suppliers, customers and others. It is furthermore outlined that the **communication structure** therefore has to be satisfactory in order to ensure all the issues mentioned before.

The other experts within the automotive industry stated the same reasons why communication is key, however it was mentioned once that a **distinction** between **internal and external communication** is necessary.

Almost all interviewees from the group of consultants and experts in other industries shared the same arguments regarding the importance of crisis communication as the ones in the automotive industry. Additionally, it was also stated once that a communication structure and division of internal and external communication is needed. The right **timing** is another factor that needs to be considered when it comes to efficient crisis communication.

The conclusion is that communication is definitely key. It is important that all employees but especially the CMT members are well informed to make appropriate decisions. Yet it is also crucial to consider the external stakeholders and for that a communication structure is needed to define whose task it is to inform whom.

Communication Strategy and Tools

Concerning Magna Presstec internally it was outlined that the **team size is decisive** when it comes to crisis communication, because the information needs to be distributed quickly and broadly to all members. In addition, certain **rules** have to be set up that specify who talks to whom internally as well as externally, because otherwise some misunderstandings might arise. The communication tools most frequently stated were **meetings** that take place at a certain frequency e.g. daily or weekly. After that **Whatsapp group chats** and also **letters** for those who do not have company mail addresses were mentioned. Other instruments stated by the **employees were newsletter, phone, staff meetings and e-mail.**

Externally, but still within the automotive industry, it was said that they did not have a communication plan and just acted according to the current needs. However, it was mentioned twice, that clear rules need to be defined, which has already been outlined within the Magna Presstec internal interviews. According to the communication tools used there are no overlaps with the answers from the internal interviews, because the three instruments named were **memos, intranet and notice boards.**

Within the other expert interviews outside the automotive industry, notice boards and Whatsapp chats were also referred to, but also **videos** might be used for crisis communication. Furthermore, the **need to know principle** should be adducted when it comes to external crisis communication. This means that (secret) company information

should only be spread externally if there is a specific need. Herby, a company should not communicate too much information but also not too little. It was also mentioned that a **communication structure** needs to be available that can be **adapted** to different **stakeholder groups**.

In conclusion, there are various different tools for communication, but the key finding is that a communication structure is essential.

5.4 Crisis Management Team

The questions within this block aimed to identify which key persons should be in the crisis management team and how many people should be in one team and why.

Key Persons in the Crisis Management Team

First of all, all interviewed persons apart from the consultants had a crisis management team during the pandemic.

At Magna Presstec three different crisis management teams were set up, so that the responsiveness of the company does not suffer if all members of one team fall ill. Head of the CMT was the **CEO**. The leaders of the three teams are the **CFO**, the **COO** and the **CTO**. Other members that were essential for crisis management and therefore needed to be in one of the teams was the **CPO**, the **CLO**, the **CQO** and the **CHRO**. What needs to be ensured in this specific constellation is that each group leader is **authorized to sign** important documents, otherwise the responsiveness is yet again endangered.

In the other automotive companies it was also a prerequisite that the CMT had the **freedom of decision-making** and the members need to be able to take over responsibility, which resembles in the following quote:

“You must have the right team, people who take over responsibility, and people who can make decisions on their own, independently in a certain area.”²¹⁰

According to the specific functions that the CMT participants have in the company, the **CEO**, the **CPO**, **facility manager**, **safety manager**, **CLO**, **COO**, **CHRO**, **CFO**, **CCO** and **corporate EHS manager** were mentioned to be on board and within the team. Some of these functions are, however, dependent on the specific crisis, because in an economic crisis you would not need an EHS manager.

What was an interesting and rather new insight from the additional interviews, was that the people within the team need to fulfill certain criterions such as **resilience**, the ability to **decide** quickly, have a lot of **energy** and **experience** and bear **responsibility**.

²¹⁰ Sample 7, individual interview 04.05.2021.

Furthermore, **empathy** is an important requirement when taking over this leadership responsibility.

It can be concluded that the upper management (C-level) must be included into the crisis management team. This way also people from different departments join together, which enables the team to have an overall picture of the current situation in the different branches of the firm.

External Consultants

In terms of crisis management support from external consultants, it was mentioned by the Magna Presstec internal interviewees that **consultants** can **provide value** in managing a crisis situation. However, this needs to be **adapted** depending on the **situation** and should be implemented in the CMP.

In the other automotive companies the opinions on this were quite similar. It was additionally mentioned that in some situations it might be **difficult to get consultants** due to a high demand for them.

Within the other expert interviews outside the automotive industry it was also stated that it makes sense, especially in crisis situations, to get help from external experts, as these people/companies have the necessary **experience** and **methods** for such situations. However, it **depends** on the internal **know-how** of the company whether external advice should be involved.

In conclusion, external advice can be helpful in dealing with critical situations. However, this has to be decided depending on the situation and the company's existing know-how regarding the given circumstances.

Number of Crisis Management Team Members

Almost all interviewees agreed on the fact that next to the core team there should be an extended CMT through which the communication speed can be enhanced and more insights from the different perspectives gained.

Magna Presstec obtained a **core** crisis team of **10** people and an **extended** one with **40** people, whereas the number of people in the core team was perceived as suitable. Anyways, it was said once that the optimal amount of participants range between **5-10** people, because too many people make the whole process slow down and therefore inefficient.

Amongst the experts at other automotive companies there are some discrepancies. One said, that a team of **7** people is perfect to work efficiently, but another one said that the team should consist of a maximum of **5** people. The extended CMT could consist of **15-20** people later on.

During the interviews with consultants and experts from other industries, there was also no clear tendency how many people should be in the team. The number **10** was mentioned in order to be broadly positioned and others said **4-6** people are ideal.

In conclusion, it is difficult to define the exact number of the crisis team participants. Still, it is advisable to set up a core CMT and an extended team. This way information lack can be reduced by convening with the extended team.

5.5 Changes

This block included only one question focusing on the changes arising through a crisis within a company.

All interviewed employees at Magna Presstec found that their **method of working** was one big change in terms of “business as usual” before the crisis. Certainly, also **homeoffice** or the **travel bans** increasingly affected the working style. Before the crisis it would have been unthinkable to close a deal without visiting the customer and discussing the terms in person, now this is more or less the only way business is done. This was also tangent to the **communication** which becomes more and more digital. Whilst the crisis the **bond to the customers** and other partners was strengthened since everybody is in the same challenging situation. Some other factors according the change were also mentioned e.g. that people desocialised due to quarantine, however this is only applicable for the current pandemic and not for other crises.

In Magna Presstec externally it was said that one of the changes regarding the crisis was the **reduction of employees**. Furthermore, since there was a shift to homeoffice, more computer equipment was needed which resulted in a **bottleneck** of microchips which affected the business. Another change was that the **stock was increased** to ensure responsiveness. In general, the crisis could also be an **accelerator to mega trends** in the community e.g. digitalization or other market dynamics. Anyways, it also **affects employees** who might now attach greater importance to work life balance than beforehand.

Some aspects from the additional interviews were repetitive, however one thing that caught the eye were two examples of change where the company started sending out **payrolls digitally** rather than print and creating an **intranet** where staff hours could be decreased due to fewer meetings.

There are certainly many different changes occurring from a crisis, however they are most likely dependent on the specific crisis situation. Home-office for example, might not be a change during an economic crisis. However, the conclusion drawn from this is that changes might be the basis for opportunities.

5.6 Opportunities

As the detection of opportunities arising from a crisis is part of the overall objective of this master thesis, in this block the interviewees were asked, whether they think that a crisis can serve as an opportunity, name examples and how it could be implemented into a CMP. The key part is to investigate if there are some possibilities a company can exit a crisis stronger than they entered.

Crises and Connected Opportunities

Two of the Magna Presstec crisis team members outlined that the changes that go along with a crisis also serve as **opportunity potential**. Yet, when the crisis happens it is at first considered to be a **threat**, but when immediate measures take effect the team can also focus on leveraging from possible opportunities

The representatives of other automotive companies appeared to be torn. Some said, that a crisis can be a chance but also threat to the company, but one should not be afraid. Another one said that it is only a threat, however later on mentioned some possible opportunities that could arise through the current crisis.

Similar to the automotive experts, the answers of the consultants and representatives from other industries cannot be unified, since some said a crisis is rather a threat and a challenge rather than a chance. Some others however said that there are possible opportunities if there is the will for change.

A crisis is not necessarily seen as an opportunity, at least not by every respondent. Still, all of the interviewees named examples of opportunities which shows, that a crisis does serve potential for opportunities.

Examples of Opportunities Arising From a Crisis

One of the main advantages was the **efficiency increase**:

“And it has led to, I mean I can't prove it scientifically, it could be coincidence, but it has led to an increase in efficiency.”²¹¹

Another factor was the **cost reduction** due to staff reduction or communication primarily digitally which saves gas and travel expenses. Moreover, through the division of the crisis team at Magna Presstec into three separate teams, not only the company but also the members of the CMT claimed to become more **flexible and stronger** on the whole. This is supported by the next statement

²¹¹ Sample 1, individual interview 16.04.2021.

“In any case, this crisis has made us stronger.”²¹²

Additionally, also the **employees** might have become more **flexible** and the perception of the term crisis might have already shifted internally towards a more positive connotation in combination with the **opportunity detection**, which might motivate the whole company. Magna Presstec furthermore spent a lot of resources in **personnel development** and **team cohesion** which might not have been that prioritized before the crisis. As it was mentioned beforehand the collaboration with **customers** did benefit and became closer, because of the exceptional time.

The insights from the external interviews were quite the same as the Magna Presstec internal ones. However, what became obvious is that some companies had to **adapt** their business to the current **trend** of digitalization which might also be an opportunity for the company to tap into some new potential.

In conclusion, there were some examples of opportunity potential that were named rather frequently such as the efficiency increase, which might take place because the employees are forced to focus on the core business and only steps that immediately generate value for the company. This also results in cost reduction and flexibility increase. The team cohesion is also positively influenced, because this drastic experience apparently brought the employees even closer together.

Opportunities Detection in Crisis Management Plan

Amongst the Magna Presstec interviewees one said that the opportunity detection should **not be part of the crisis management plan** and another one said that identifying opportunities is a task which should be done **after** the **crisis** is **over**. It could be resulting from the **lessons learned** where it might become obvious, which opportunities could be gained. On the other hand, two others said, that it must be anchored in a **process** where the employees are on the continuous search of potential chances. In order to identify various opportunities things have to be looked at from different angles and questioned if something could be done differently and if that results in an opportunity.

The results from the external automotive experts draw a similar picture, that this detection should take place after the first damages have been coped with or even after the crisis is over. For the opportunity identification specific **learning loops** should be included that are **outside-in oriented**.

²¹² Sample 2, individual interview 16.04.2021.

The key take-away according to this question was that the opportunity identification must be included after the critical crisis phase. By including lessons learned this opportunity potential could be exhausted.

Future Strength Because of Crisis

At Magna Presstec many different strengths were mentioned that they regard as a result from the crisis. First of all, the **experience, insights and lessons learned** (can) have a positive impact on the future of the company. Connected to the lessons learned, the **emergency plans** might also be adapted to improve responsiveness for possible upcoming events. Furthermore, they learned **not to be afraid of failing** but **benefiting** from the **opportunities** occurring due to the crisis. Additionally, they have learned to be more proactive. Also **teambuilding** and **personnel development** was seen as a possible strength for the future. The **team** also **positioned** itself **broader** and gained many insights in different departments which might enable networked thinking later on. Moreover, the **communication** and information exchange developed and became more efficient from which the teams and the company could benefit from.

The peers in the automotive industry also mentioned the gained experience, insights and lessons learned as well as the optimized communication.

What was new concerning the insights from the consultants and other industry representatives were best **practice examples** of companies in **various industries** which somehow goes hand in hand with internal lessons learned. Furthermore, the **company culture** should be **strengthened** which might also positively impact a company's future. Lastly, the company should **strategically grow** because this might result in **crisis resilience**.

The possibilities of deriving strength from a crisis are numerous. The pivot point in this case are the lessons learned, because from them the company can benefit the most.

5.7 Conclusion of the Interview Study

One important conclusion drawn from the interviews was concerning the design of the crisis management concept, whereby it will have to be divided into a strategic and an operative part. This way, the strategic part can focus on the pre-crisis phase, in which the employees and primarily the crisis management team members must be prepared for a crisis, the crisis response in which a more detailed, operative plan is included and the post-crisis phase for the identification of opportunities. As it is necessary within a crisis situation to react quickly and flexibly, the concepts of agility and resilience should also be included into the plan. Furthermore, the distinction between the already existent emergency plans and the elaborated CMP from this thesis must be made. It is crucial for the employees and especially the CMT members to be aware of the fact, that the

emergency plans are detailed step-by-step guidelines for e.g. a fire or a supplies problem. The CMP on the other hand is for greater incidents and offers a rather generic guide for efficiently overcoming a crisis. For the operative part firstly a CMT (upper management) and their functions should be defined, but without any names, because it should be person independent. Also, a communication structure should be inserted listing whose responsibility it is to inform stakeholders. This way the communication process could be made more efficiently from the beginning on. After that the four key steps (convening with team, situation analysis, task allocation and communication) must be elaborated in more detail. Additionally, a timeline should be included to show, what has to be done prior to which step.

By conducting an internal and external analysis of Magna Presstec to gain insights from current crisis management approaches, subgoal two of the thesis can be considered as achieved.

6 Results and Recommendations

6.1 Crisis Management at Magna Presstec

This chapter describes the developed concept to answer the research question in detail. Additionally, subgoal three of the thesis, which is the bundling of the information gained from the literature and the field study into a crisis management plan for Magna Presstec and the derivation of concrete action measures on how to deal with changes and how to transfer them into opportunities, will be achieved. Furthermore the company subgoals one and two will be achieved. Therefore, the following figures are provided, which are representing the developed crisis management concept for Magna Presstec. Each phase of the developed concept is described in detail afterwards.

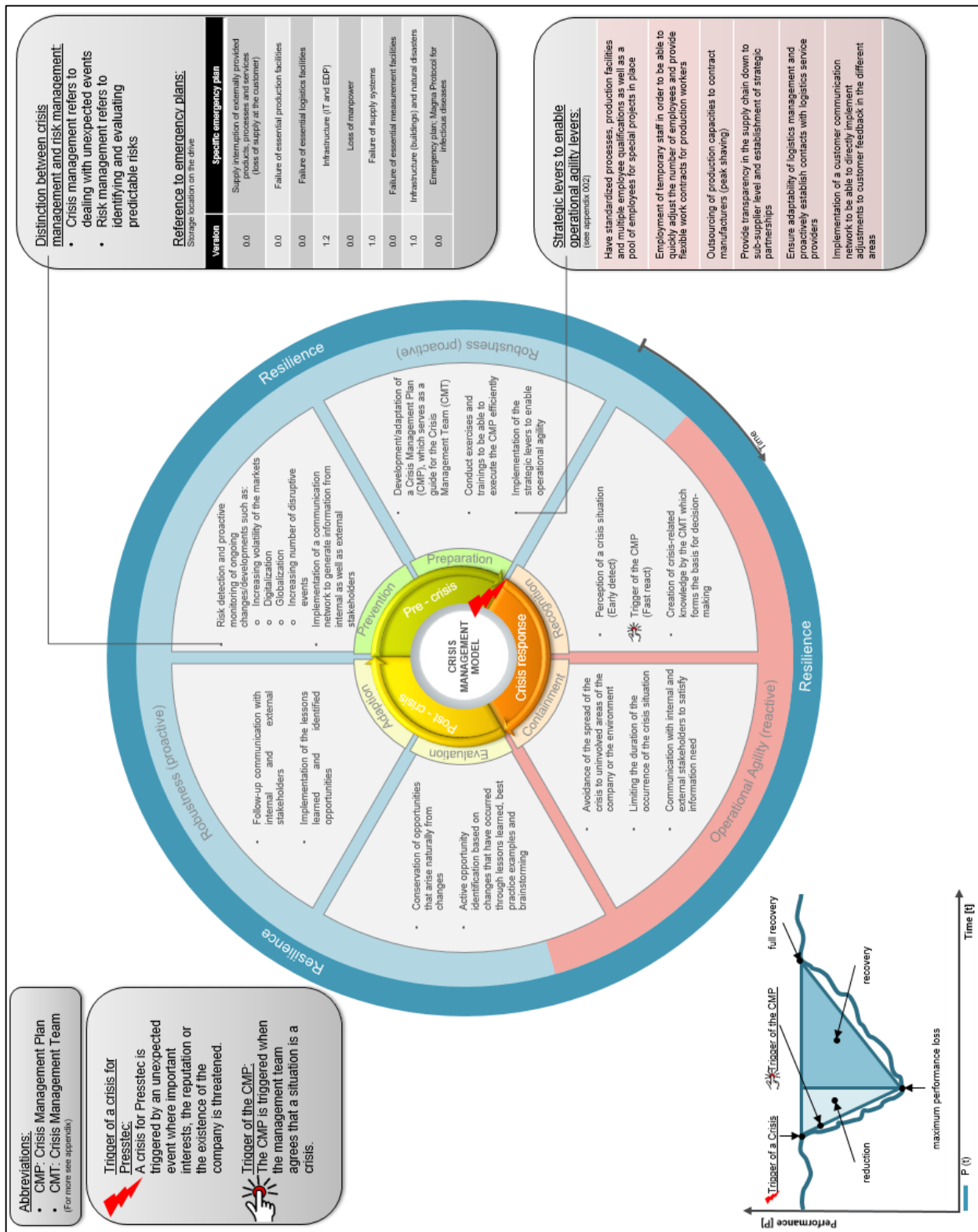


Figure 23: Strategic Crisis Management Model, Source: own representation.

Appendix 001: Crisis Management Team (CMT)					Appendix 002: Operational agility levers		
Nr.	Department	CMT A	CMT B	CMT C	Strategic levers to enable operational agility	Recommended responsible CMT member	Operational agility levers for quick actions
1	General Manager	CEO			Have standardized processes, production facilities and multiple employee qualifications as well as a pool of employees for special projects in place	COO	Quick relocation of employees between production lines or locations (job rotation)
2	Acting Management Lead	COO	CTO	CFO			
3	Production	NAME1	NAME2	NAMES			
4	Engineering	NAME1	NAME2	NAMES			
5	Human Resource	CHRO	NAME2	NAMES			
6	Continuous Improvement Process	NAME1	NAME2	NAMES			
7	Quality	NAME1	NAME2	CQO			
8	Finance	NAME1	NAME2	NAMES			
9	Information Technology	NAME1	NAME2	NAMES			
10	Purchasing	CPO	NAME2	NAMES			
11	Logistic	NAME1	CLO	NAMES			
12	Site Lebring	NAME1	NAME2	NAMES			
13	Site Stornatec	NAME1	NAME2	NAMES			
Core CMT		All crisis management team members must be able to take over the leading role of the respective department independently at any time.					
Extended CMT							
1					Employment of temporary staff in order to be able to quickly adjust the number of employees and provide flexible work contracts for production workers	CHRO	Adjustment of the number of employees (temporary staff, permanent staff)
4					Outsourcing of production capacities to contract manufacturers (peak shaving)	CLO	Short-term modification of the company holiday periods to reduce overtime of the employees
5					Provide transparency in the supply chain down to sub-supplier level and establishment of strategic partnerships	CLO	Quick adjustment of production to fluctuations in demand
8					Ensure adaptability of logistics management and proactively establish contacts with logistics service providers	COO	Short-term change of shift duration or number of shifts to increase or decrease the capacity of production
7					Implement a customer communication network to be able to directly implement adjustments to customer feedback in the different areas	CPO	Insourcing of production that has been outsourced to subcontractors
8						CLO	Contacting suppliers to avoid unplanned delivery delays
9						CPO	Taking advantage of price benefits and privileged customer status in times of crisis
10						CLO	Quick response in logistics by changing means of transportation. (for example truck, ship, train, plane)
11							Creating a stock of components that could cause a shortage to avoid the failure of the supply chain
12						Team	Using customer communities to gather information from the market in order to make faster and better decisions regarding the produced products
13						CTO	Observing and managing customer issues related to projects in the launch phase
14						CQO	Observing and managing customer issues related to quality
15						CFO	Observing and managing the impact on the financial aspects of the company

Figure 25: Appednix part 1 of Crisis Management Concept, Source: own representation.

Internal Contact Information				External Contact Information		
Contact	Name	Phone number	Name Deputy	Contact	Name	Phone number
CEO				Company doctor		
COO				Consultants		
CTO				Ambulance Weiz		
CFO				Police Weiz		
CHRO				Fire brigade Weiz		
CQO				Poison Control Centre		
CPO				Ambulance Lebring		
CLO				Police Lebring		
Head of Production				Fire brigade Lebring		
Head of IT				Ambulance Stomatec		
Head of Maintenance				Police Stomatec		
Head of Safety Environment & Health				Fire brigade Stomatec		
Head of Site Lebring						
Head of Site Stomatec						
Head of Manufacturing RB1						
Head of Manufacturing RB2						
Head of Manufacturing RB2						
Head of Manufacturing PW1						
Head of Manufacturing PW2						
Head of Manufacturing Lebring						
Head of Continuous Improvement						
Engineering						
Human Resource						
Continuous Improvement						
Quality						
Finance						
Information Technology						
Purchasing						
Logistic						

Abbreviations	
CMP	Crisis Management Plan
CMT	Crisis Management Team
CEO	Chief Executive Officer
COO	Chief Operations Officer
CTO	Chief Technology Officer
CFO	Chief Financial Officer
CHRO	Chief Human Resource Officer
CQO	Chief Quality Officer
CPO	Chief Purchasing Officer
CLO	Chief Logistics Officer

Figure 26: Appendix part 2 of Crisis Management Concept, Source: own representation

6.1.1 Phase 1: Pre-crisis

The starting point is the pre-crisis phase which is further divided into two parts – prevention and preparation.

At first the company should try to prevent the crisis or at least reduce the impact of the crisis on the organization. In that case risks should be recognized by proactively observing current developments and leveraging the network to internal and external experts. As risk management apparently is a part of crisis management that deals with foreseeable risks, Magna should in that case use the existing emergency plans that are shown in the right table. However, not all events are predictable and can be observed, in these cases the following steps of the strategic crisis management model as well as the operative crisis management plan are from increasing importance.

For the case that a company cannot prevent a crisis, the next step is to properly prepare. Hereby, the development, but also the adaption of a CMP is crucial in which rough steps are defined as a guide for the CMT after the occurrence of a crisis. As the CMP has already been developed within the scope of this thesis, Magna Presstec must only focus on the adaption of this plan. Yet this plan must be trained and exercises for the appropriate and efficient execution must be conducted in order for the CMT to be properly prepared, when the crisis suddenly occurs. The steps taken in the pre-crisis phase are designed to increase the robustness of the company, which can limit the loss of performance in the event of a crisis and is therefore, of particular importance.

As agility is predominantly important in phase 2, six levers have been defined that are derived from the literary section. Those six strategic levers are the enablers of the operational agility levers which are from increasing importance to ensure high agility during the crisis response phase. Furthermore, if implemented correctly, they also have a positive impact on the robustness.

The first strategic lever focuses on the current resources of a company and its effective implementation. Therefore, the company should standardize processes, production facilities and employee qualifications as well as setting up a pool of employees for special projects. This way, when a crisis strikes, the production employees at Magna Presstec can quickly be relocated and installed at other machines due to the standardized processes. Furthermore, the group of employees for special projects can be convened quickly to find solutions for occurring problems.

Secondly, it might be advisable to employ temporary staff, so that the amount of needed personnel can be adapted quickly during a crisis. Especially for the production workers at Magna Presstec, flexible work contracts are important. Those two aspects enable the operational levers the quick adjustment of the number of employees in terms of white-

but also blue-collar workers. Because Magna Presstec more or less is a production facility, costs can be radically reduced by changing the shifts based on the current customer demands. Furthermore short-term modification of the company holiday periods to reduce overtime of the employees might be advisable.

Thirdly, outsourcing of production capabilities to contract manufactures could be a strategic lever. Whereas when the crisis occurs and the demand declines, Magna Presstec can insource this capacity again, and thereby stabilize utilization.

The fourth strategic lever is providing transparency within the supply chain and establishing strategic partnerships, because, from an operational perspective, those suppliers can be contacted in order to avoid unplanned delivery delays. Additionally, due to the close strategic relationship, price benefits could be discussed and Magna Presstec might be treated more privileged than other customers who do not have such a strong bond to the supplier.

Another important strategic aspects is to ensure adaptability of the logistics management as well as to establish contacts with logistics service providers. Therefore, when a crisis happens, Magna Presstec could count on a quick response from the logistics service providers if they want to change their means of transportation. Furthermore, Magna Presstec could increase their stock of components that are rather likely to be affected by a scarcity whilst the crisis in order to avoid the failure of the supply chain.

And last but not least, a customer communication network should be implemented so that adjustments from customer feedback can be directly implemented in different areas. From the operational point of view this enables the use of customer communities to gather insights from the markets which leads to faster and better decisions regarding the produced products. Also, customer issues should be observed and coped with especially in the launch phase, so that the product launch is not endangered. The same applies for issues in terms of quality and financial aspects. Generally, the close communication is crucial to quickly adapt to customer issues and react quicker to them.

6.1.2 Phase 2: Crisis response

In the second phase, namely crisis response, the crisis arises. This phase might be further subdivided into recognition and containment.

Initially, the crisis might not be perceived as such by all CMT members. Therefore, it is important to define what the term crisis really means. For this crisis management concept the following definition has been used: A crisis is an unexpected event where important interests, the reputation or the existence of the company is threatened. Based on this definition the next step for the CMT is to trigger or acknowledge the crisis as such, if all the preconditions are met. If all the team members or at least the majority did

acknowledge the event as a crisis, the following steps as well as the operative CMP is activated. After that, the CMT has to increase their knowledge regarding the current crisis in order to make well-founded decisions. This resembles the step “create situational awareness” from the operative CMP, yet in the model it is only mentioned briefly to ensure the strategic overview of crisis management.

In the containment phase, the CMT tries to contain the spread of the damage caused through the crisis to other areas, either inside but also outside of the company. One important part is also the duration decrease of the actual crisis, so that the amount of time is rather low during which the company finds itself in a position where its existence is at stake. And certainly also communication with internal and external stakeholders is vital in a crisis situation in order to satisfy the information need of them. Some of these steps overlap with the ones from the operative CMP, but yet again the plan serves as a more detailed guide during the crisis.

Another part of the phase 2 is the operative CMP, in which specific steps for efficient crisis management are defined. The majority of the information within this plan has been gained within the qualitative interviews and supplemented with insights from the literary section. Overall the plan is divided into four big steps that are assigned to a time course.

One of the most important aspects hereby is to detect the crisis early, which means that the CMT should, if possible, detect this critical event as quickly as possible in order to avoid a major drop of the company’s performance. After that, it is crucial to react quickly and go through the steps of the CMP.

At first the CMT must convene, whereas the core team consists of eight people in total who have different responsibilities and requirements. All the members are from the C-level so they have the authority to decide, which is also important during a crisis event. Additionally the CMT members should fulfill specific personality traits such as the ability to work under pressure or make decisions quickly. Furthermore, the core team might be extended into three teams (CMT A, CMT B & CMT C), so that the company is always capable of action, even though some members of the CMT might be incapable e.g. through an illness. Whilst the convention of the core team, they should decide if an extended CMT is needed to receive more detailed insights from specific departments within the company or to share information more quickly and widely. On the other hand also external experts could contribute to the company’s situation, so the core CMT must also decide whether consultants or other experts e.g. doctors are needed. Another organizational matter to be coped with in the first team meeting is the frequency of the core CMT meetings. This is dependent on the severity of the crisis, therefore the team could, for example, convene daily or only once a week.

After those matters have been discussed, a situational awareness must be created. In this step specific questions have been included from the literary section that should help Magna Presstec to assess the current situation and evaluate the seriousness of the current crisis. Furthermore, a broad spectrum of information must be gathered based on the internal and external network. This also goes along with the strategic lever of building a strong bond to suppliers and customers. The overall objective of this phase is to obtain enough information to make effective decisions.

The next step is to take action and the starting point should be the definition of an overall goal of the company's situation after the crisis. This goal aims to serve as a motivator and a guide. The next step is to make quick and critical management decisions. Derived from these decisions specific measures that have to be implemented must be elaborated. After that sub-tasks for the core CMT members as well as their employees are allocated and responsibilities and deadlines are defined. The overall prerequisite for this phase is that all core CMT members have the authority to decide, otherwise the decisions cannot be made as quickly and flexibly. For the fulfillment of these measures/subtasks the operational agility levers should be accessed where it is possible to foster quick actions:

1. Quick relocation of employees between production lines or locations (job rotation)
2. Using employees from the staff pool to be able to react at short notice in case of problems.
3. Adjustment of the number of employees (temporary staff, permanent staff)
4. Short-term modification of the company holiday periods to reduce overtime of the employees
5. Quick adjustment of production to fluctuations in demand
6. Short-term change of shift duration or number of shifts to increase or decrease the capacity of production
7. Insourcing of production that has been outsourced to subcontractors
8. Contacting suppliers to avoid unplanned delivery delays
9. Taking advantage of price benefits and privileged customer status in times of crisis
10. Quick response in logistics by changing means of transportation (for example truck, ship, train, plane)
11. Creating a stock of components that could cause a shortage to avoid the failure of the supply chain.
12. Using customer communities to gather information from the market in order to make faster and better decisions regarding the produced products
13. Observing and managing customer issues related to projects in the launch phase

14. Observing and managing customer issues related to quality

15. Observing and managing the impact on the financial aspects of the company

Communication is key, therefore one specific stage has been implemented to ensure efficient communication within and outside of the company. Important information must be forwarded to internal and external stakeholders, yet the timing of communicating certain information is vital, because in some situations it may be necessary to communicate certain information sooner or later. Additionally the “need-to-know” principle should be applied that states, that Magna Presstec should not communicate too much information but also not too little and to carefully think about what kind of information is really necessary to spread. This mostly concerns external stakeholders, but also internally not everything should be communicated to avoid negative press or that strategic steps go public. So, in general the employees should be informed top-down from the extended CMT. For external stakeholders, one spokesperson of the core CMT is determined (CHRO) who consistently informs them and avoids misunderstandings.

Between the last three stages there is an iteration loop, because during the core CMT meetings the members run through those three different stages again and again until the existence of the company is no longer endangered. By developing the operative CMP for Magna Presstec, the company subgoals one can be considered as achieved.

6.1.3 Phase 3: Post-crisis

After the existence of the company is no longer threatened, the crisis by definition is over and the post-crisis phase is reached.

Due to the crisis the company might have faced some opportunities e.g. a higher flexibility, more efficiency, reduced costs etc. and it is now important for the company to conserve those positive changes. However, there might also be some other opportunities that the company did not yet leveraged that have arisen as a result of the change brought by the crisis and therefore an active identification of those opportunities might be advisable. Conducting lessons-learned activities from the previous steps of the crisis management process and brainstorming sessions based on changes that have resulted from a crisis could be ways of identifying opportunities. Additionally, best practices from other companies and/or industries could be used for opportunity identification. The opportunity identification has been included in the post-crisis phase on purpose, since the majority of the interview partners stated that during the crisis there might not be time to think of these opportunities as well as the lessons learned which certainly only arise after the crisis is over.

The “last” step of this cycle is named “adaption” and in here Magna Presstec should communicate with internal and external stakeholders and discuss important topics that

arose through the crisis and to close them. Additionally, the lessons learned and opportunities for Magna Presstec must be implemented into daily business. By evaluating and adapting the opportunities arising from the changes brought by the crisis, the second subgoal of the company can be considered achieved.

As the arrow of post-crisis indicates, this is a continuous cycle whereby after the post-crisis phase, the company again runs through the pre-crisis phase and so on. Similar to the pre-crisis phase, all measures and actions taken in the post-crisis phase lead to an increase in the robustness of the company. On the whole, resilience can be increased if agility and robustness are increased because the negative surface area is reduced. This is also visible in the resilience model, which illustrates the performance over time. Thereby, the robustness corresponds to the minimum performance level to which the company drops. Agility describes the regeneration velocity, i.e. how quickly the initial performance can be achieved again. The surface underneath the curve therefore describes the resilience. This conceptual model is also described in more detail in chapter 2.4.

Additionally, there are also resources that are necessary so that the CMT can work efficiently. The establishment of a meeting place, as well as alternative meeting places must be defined. Furthermore, an adequately equipped (e.g. Computers/Laptops, Telephones and Walkie-talkies) meeting room should be provided.

On the second page of the crisis management concept, the appendices are presented to further explain and support the main contents on the first page. Appendix 001 presents the detailed team constellation of the extended CMT. Furthermore, Appendix 002 shows the relationship between the strategic and operational agility levers, as well as the proposed responsibilities of each lever. Additionally, internal as well as external contact information and a list of all abbreviations used in the crisis management concept are provided in the appendix.

Through the development of the strategic crisis management model including the operational CMP with defined persons, steps and triggers as well as measures for action on how to transform changes into opportunities, the research question on the specific requirements for crisis management in the automotive supply industry can be considered as answered. Furthermore the thesis subgoal three can be considered as achieved.

6.2 Recommendations for Action

In the following, concrete measures for action are defined for Magna Presstec, which enable the implementation of the strategic crisis management model and the operative crisis management plan. By implementing these measures, the efficiency, when it comes to crisis management, can be increased. Furthermore, additional recommended

measures resulting from the insights gained in the course of work are defined, as it can be seen below:

- Implementing the strategic crisis management model and the operative crisis management plan at Magna Presstec by:
 - Informing the crisis management team and getting them to know the strategy model and operative plan for crisis management
 - Reviewing the strategic crisis management model and training the operative crisis management plan with the crisis management team (feasibility check; on regular basis)
 - Making necessary adaptations to the model and plan based on the feasibility check
 - Conducting teambuilding activities with both the core and the extended crisis management team
 - Determining the frequency for the regular review/adjustment and training of the strategic model and operative plan
 - Preparing the necessary resources defined in the operative crisis management plan
 - Defining the location of the crisis management plan (printed and digital form)
- Executing the steps in the post-crisis phase by:
 - Conserving the opportunities that naturally arise from changes (see question nr. 20 in appendix “Analysis Report of the Interviews Conducted”) by raising awareness, informing and training staff
 - Identifying opportunities actively based on changes that have emerged through lessons learned, brainstorming and external best practices and implementing them
 - Communicating with stakeholders on updates, ongoing research and developments related to recovery, earnings and job situation in order to create trust
- Executing the steps in the pre-crisis phase by:
 - Adapting the emergency plans with regard to relevant risks (e.g. blackout) and the reference to the operational crisis management plan

- Implementing a monitoring system to proactively observe changes in the business environment
- Implementing the strategic levers to enable operational agility

7 Summary and Outlook

The overall objective of this thesis was to explain and define the scientific basics on the topic of crisis management, to bundle the information in a crisis plan that is for Magna Presstec and to work out ways of dealing with changes and turning them into opportunities. In this concluding chapter a summary of the thesis is given. In this context, the relevance of the topic and the summarized findings from the research process are presented. Finally, an outlook at the end of the thesis is given in which the need for further research is identified.

7.1 Relevance of the Topic

Chapter 1 addressed the initial situation. Several current developments and trends within the automotive industry were outlined and the impact of the recent Covid 19 pandemic was summarized. Afterwards, the challenges Magna Presstec is facing and the specific objectives of the thesis were defined. Furthermore, a company presentation was given, which provided insights into the strategy, the customer spectrum as well as the product portfolio of Magna Presstec.

7.2 Existing Knowledge

Chapter 2 dealt with focussing on the literature relevant to crisis management, which also forms the basis for the development of the structured concept to crisis management for Magna Presstec. First of all, the basic definition of crisis management and crisis types were elaborated. Furthermore, a distinction between crisis management and risk management was made and crisis management was structured as a process, institution and system. Subsequently, other topics relevant to crisis management were discussed, such as resilience, agility and robustness, as these topics are particularly important when it comes to dealing with uncertainties that a crisis brings. Finally, changes resulting from a crisis and the associated identification of opportunities were outlined in order of being able to emerge strengthened from a crisis situation in the future. By summarizing the basic and current developments in crisis management, subgoal one of the thesis can be considered as accomplished.

7.3 Research Approach and Industry Specific Requirements

As a result of the analysis of the basic literature on crisis management, the research question was formulated and sub-questions were derived in chapter 3. Furthermore, chapter 4 gave an insight into the methodological approach of the survey which served as the basis in order to answer the research question in the aftermath.

The aim of chapter 5 was to clarify the industrial perspective on the topic crisis management and to derive corresponding requirements. Thereby the results of the field

study have shown that both a strategic and an operative approach to crisis management are necessary to be able to consider the topic comprehensively. The strategic part is largely concerned with measures taken in the pre- or post-crisis phase, which increase the robustness of a company. As an example of the results of the interviews, opportunity identification should be implemented in the post-crisis phase. The operative part, which belongs to the strategic model, should contain basic steps to be taken in case of the occurrence of a crisis situation. For the operative part, a CMT and a communication structure must be in place, since communication is key in crisis management. In the course of the evaluation of the interviews, it also became clear that a distinction must be made between risk and crisis management. Furthermore, it became apparent that changes form the basis for opportunities and that the possibilities to emerge stronger from a crisis are diverse. By conducting an internal and external analysis of Magna Presstec to gain insights from current crisis management approaches, subgoal two of the thesis can be considered as achieved.

7.4 Thesis Results

Within chapter 6, the developed strategic crisis management model and the operative crisis management plan are outlined in order to answer the research question and the associated sub-questions related to the specific requirements of crisis management in the automotive supply industry. Therefore, the individual phases and steps of the strategic model and the operative plan were presented and described in detail in this chapter. In the pre-crisis phase, the aim is to prevent a company crisis from occurring or to prepare for a crisis if it cannot be avoided. In the crisis response phase, the recognition of a crisis and its containment is most important. Within this phase, the operational CMP comes into action. This plan consists of four main steps, namely convening the CMT, creating situational awareness, taking action and communicating with stakeholders. This process thus represents the achievement of the company subgoal one. Once the crisis is over, the post-crisis phase of the strategic model comes into focus, which is mainly about evaluating the changes and the related opportunities, as well as adapting the lessons learned from the previous steps. This is also the phase where the company's subgoal two is achieved.

This crisis management concept was developed based on the existing knowledge in the literature and combined and supplemented with the industrial requirements and findings derived in chapter 5. As this was a qualitative research, examining the behavior of individual people, the study provides valuable and meaningful results for the crisis management concept of Magna Presstec. Therefore, the thesis subgoal three can be considered as achieved.

The research question formulated in chapter 3 was answered by developing the strategic crisis management model including the operational crisis management plan with defined people, steps and triggers as well as measures on how to transform changes into opportunities.

The overall thesis objective formulated in chapter 1 was accomplished by explaining and defining the scientific basis for the topic of crisis management, bundling the information into a crisis management approach that is valid for Magna Presstec, and working out ways to deal with changes and transforming them into opportunities.

The developed crisis management concept for Magna Presstec is intended to represent the strategic approach to crisis management. Within this concept, additionally concrete operational measures to manage a crisis situation have been elaborated.

Ideally, this crisis management concept should be implemented in the company within the course of this thesis, but since this would have burst the scope, only the concept was developed and recommendations for action were defined.

Therefore, the overall company objective formulated in chapter 1 will be achieved through the implementation of the crisis management concept by Magna Presstec with the recommendations for action provided in chapter 6.

7.5 Outlook

Despite answering the formulated research question and the large amount of existing literature on crisis management, there is still a need for further research on crisis management, as it is difficult to find concrete concepts that take a holistic view of crisis management. Since the majority of the crisis management concepts are specified at a macro level, further research into approaches particularly in the automotive industry could provide deeper insights.

Thereby, the provision of the crisis management concept consisting of the strategic model and the included operational plan enables potential future research fields in relation to specific approaches for crisis management in the automotive industry.

However, due to the fact that the focus of this thesis was on the development of a crisis management concept, the implementation of a monitoring process in the crisis management concept was not addressed in detail. Therefore, this might also represent an important aspect for future research.

Furthermore, the results have shown that a strategic as well as an operational approach to crisis management must be present in order to be able to consider the topic comprehensively. So far, however, there has been limited academic research focused on

combined approaches to crisis management. This master thesis therefore serves as a basis for further research in this area as well.

With the developed crisis management concept the company can take quick measures in the event of a crisis and subsequently identify opportunities to increase the efficiency in terms of crisis management in the future. Overall, I am certain that the insights from this master thesis add value for Magna Presstec and that the overall company objective will be fulfilled, provided that the recommendations for action and the crisis management concept developed, are implemented by Magna Presstec.

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9.2 Interview Guideline

Introduction	Main areas of the interview
<ul style="list-style-type: none"> ● Welcoming of the interviewee ● Introducing the aim of the interview ● Duration of the interview ● Inform the interviewee about the main questions that are going to be examined throughout the whole interview ● Informing interviewee that interview is going to be recorded ● DSGVO - Filling out a consent form 	<p>What is your / your company's approach to crisis situations?</p> <p>Do you / your company have a crisis plan and how does it look like? Which people, steps, triggers etc. appear in it?</p> <p>Which crises do you remember and how did you / your company deal with the changes resulting from these crises?</p> <p>How do you / your company realize the transformation of changes into opportunities?</p>
Ice Breaker Questions	
<p>Could you please describe your position in the company/domain and your role and responsibility in regard to crisis management within your company/domain?</p> <p>How do you assess the maturity level of you / your company in terms of a strategic approach to the market situation, market volatility, predictability of disruptions and innovations?</p>	<p><i>Lead interviewee into the topic</i></p> <p style="text-align: center;"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> low medium high </p>
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Block 1: Managing a crisis situation

What is your / your company's approach to crisis management?

Guiding question

If directional questions have already been answered in the guiding question, then simply repeat and ask again, "so you meant ...". Then ask: Can you think of anything else?

Directional questions

- What are requirements for crisis management in general which you consider as important?
- What were the problems that arose during the COVID-19 and other crises in terms of crisis management?
- What are potential improvements regarding your / your company's crisis management approach?
- What are crisis types/scenarios/risks you regard important for your company/domain?
- What were the steps taken after the outbreak of the crisis in March 2020 or other crises?

Block 2: Crisis management plan	
<p>What is your opinion on a crisis plan with predefined steps?</p> <p>Directional questions</p> <ul style="list-style-type: none"> • Which influences does a crisis plan with predefined steps have on the crisis management (of a company)? • Do you / Does your company have a crisis management plan with predefined steps prepared? • What is the content of the crisis plan? 	<p><i>Guiding question</i></p> <p><i>If directional questions have already been answered in the guiding question, then simply repeat and ask again, "so you meant ...". Then ask: Can you think of anything else?</i></p>
Block 3: Crisis Communication	
<p>Which role does communication play in crisis management for you?</p> <p>Directional questions</p> <ul style="list-style-type: none"> • Do you / Does your company follow a certain crisis communication strategy? 	<p><i>Guiding question</i></p> <p><i>If directional questions have already been answered in the guiding question, then simply repeat and ask again, "so you meant ...". Then ask: Can you think of anything else?</i></p>
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Block 4: Crisis Management Team

Who are the key persons/bearers when it comes to crisis management (within your company)?

Guiding question

If directional questions have already been answered in the guiding question, then simply repeat and ask again, "so you meant ...". Then ask: Can you think of anything else?

Directional question

- Would it make sense for the company to call in external consultants in a crisis?

- Do you / Does your company currently have a crisis team which is responsible for managing a crisis?

- What is the number of team members your / your company's crisis team has and why?

Block 5: Changes

When you think about the Covid-19 and other crises, which changes have taken place in your company / for companies which occurred due to Covid-19 or previous crises?

Guiding question

If directional questions have already been answered in the guiding question, then simply repeat and ask again, "so you meant ...". Then ask: Can you think of anything else?

Block 6: Opportunities

If you read the statement “Crisis- danger and opportunity at the same time”, what do you think about that?

Guiding question

If directional questions have already been answered in the guiding question, then simply repeat and ask again, "so you meant ...". Then ask: Can you think of anything else?

Directional questions

- Do you consider a crisis as an opportunity for a company?
- What were opportunities that resulted from changes in your company / for companies due to Covid-19 or other crises?
- How can the identification of opportunities (for a company) be implemented into a crisis plan?
- How could companies strengthen their position in order to emerge stronger from a crisis situation in the future?

Closing

- Do you have any other comments you would like to share?
- Ask if there are any other questions
- Thanking
- Say goodbye

9.3 Analysis Report of the Interviews Conducted

Question	Summary	Answers
<p>Nr. 1</p> <p>Block 1: Managing a crisis situation</p>	<p>Strategic:</p> <ul style="list-style-type: none"> Strategic orientation is important for the outcome of a crisis situation [2x]. <p>Operative:</p> <ul style="list-style-type: none"> Convene crisis team with respective responsibilities [6x]. Analyze situation [3x] Define measures and distribute tasks [3x] Communicate [3x] Obtain information, use network [2x]. Risk emergency management in the automotive industry defined by industry standard IATF [4x]. 	<p>Sample 14</p> <p>"Which steps has the company taken to be successful in the long run."</p> <p>Sample 6</p> <p>"A team was set up very quickly, this crisis team was responsible for crisis management."</p> <p>Sample 1</p> <p>"Analyzing the situation, analyzing the impact and assigning tasks on that, who has to do which task, and a big part in that situation was just specifically communication."</p> <p>Sample 8</p> <p>"[...] the foreseeability of what to expect, was actually not given. Accordingly, you have to make sure that you get a lot of information."</p> <p>Sample 5</p> <p>"On the subject of risk emergency management, the IATF already specifies quite a bit [...]"</p>
Conclusion	Crisis management involves a strategic as well as an operational approach.	

Question	Summary	Answers
<p data-bbox="344 1895 1046 1951">Block 1: Managing a crisis situation</p> <p data-bbox="344 1554 887 1883">Nr. 2 What are requirements for crisis management in general which you consider as important?</p>	<ul data-bbox="448 949 1158 1507" style="list-style-type: none"> • Address the issue of crisis and making preparations for crises through action guide or plan [4x]. • Make decisions quickly [2x] • You need the attitude and culture towards change or transformation [1x]. • It is important to have a crisis team that accepts the challenge. [1x] • Define communication rules and spokesperson to avoid misunderstandings. [1x] • Definition of crisis, trigger and target [3x]. • Time horizon [1x] 	<p data-bbox="352 837 488 916">Sample 1 "The further you look ahead and think, what could we do when this comes, the calmer you are in the water."</p> <p data-bbox="504 837 671 916">Sample 2 "After all, you can certainly turn it around to the point where you can draw an opportunity from a crisis for optimization and improvement."</p> <p data-bbox="687 837 871 916">Sample 6 "And that's where the response has been quick and decisions have been made quickly and there hasn't been a lot of discussion."</p> <p data-bbox="887 837 1054 916">Sample 7 "That's why it's also important to have clear rules when communicating. Who talks to whom so that there are no misunderstandings."</p> <p data-bbox="1070 837 1254 916">Sample 12 "At the beginning it is important to define what is a crisis, because if something goes wrong doesn't mean I'm in a crisis."</p>
Conclusion	Structured preparation is essential for successful crisis management.	

Question		Summary	Answers
Nr. 3	Block 1: Managing a crisis situation	<p>What were the problems that arose during the COVID-19 and other crises in terms of crisis management?</p> <ul style="list-style-type: none"> • Communication problems [3x] • Lack of information [2x] • Uncertainty to make the right decisions [3x] • Inefficient production due to lack of flexibility in terms of job rotation of employees [1x]. • Increasing cost pressure due to reduced sales and prolonged cash cycle [2x] 	Sample 5 "[...] that in one case or another we have communication problems, difficulties in getting things to the point there."
			Sample 3 " [...], no matter how much you communicate, it's often extremely difficult to get valid data internally."
			Sample 9 "We've certainly had difficulty finding the right balance between which decisions are made decentralist and which decisions are made centrally."
			Sample 1 " [...] we have of course been running on a very low flame with 10% turnover for a few weeks. Which is first of all complicated in terms of costs, [...]"
Conclusion	Increasing uncertainty in a VUCA world leads to less predictability and crisis management becomes more and more important.		

Question	Summary	Answers
<p>Nr. 4</p> <p>Block 1: Managing a crisis situation</p> <p>What are potential improvements regarding your / your company's crisis management approach?</p>	<ul style="list-style-type: none"> • Improvement of the communication structure [2x] • Spread information more widely [2x] • For adhoc crises, make crisis management independent from people [2x]. • Long-term capacity planning to secure supply in the long term [2x]. • Establish contractual agreement with customers to exclude certain crises [1x]. • Develop, train and adapt crisis plans more often [1x]. • Training of employees on several machines to be more flexible (job rotation) [1x]. 	<p>Sample 4</p> <p>"Getting broader. And that's what I would do, if there's an issue like that again, right from the beginning."</p>
		<p>Sample 1</p> <p>"[...] it would be desirable if it becomes independent from persons."</p>
		<p>Sample 8</p> <p>"[...] we deduce from this that we have to try to secure the supply in the longer term, perhaps also make certain contractual agreements with the customer that exclude just such crises, so to speak."</p>
Conclusion	Learning from mistakes and observing potential for improvement is essential.	

Question	Summary	Answers
<p>Block 1: Managing a crisis situation</p> <p>Nr. 5</p> <p>What are crisis types/scenarios/risks you regard important for your company/domain?</p>	<ul style="list-style-type: none"> • Supplier fails/material fails [6x] • Fire [5x] • Blackout [4x] • Customer complaint/warranty case [3x] • Flood [3x] • Failure of production equipment (plant fails; measuring equipment fails; logistic equipment fails) [2x]. • Earthquake [2x] • Storm [2x] • Hacker attack [2x] • IT infrastructure (failure of IT systems, cloud technologies and Internet) [2x]. • Customer locks [1x] • Viruses, Trojans [1x] • Terror attack [1x] • Burglary [1x] • Fatal accident at work [1x] • Displacement [1x] • Cash flow risk [1x] • Sales risk [1x] 	<p>Sample 1</p> <p>"[...] and there are a few that are more likely and more common, e.g. a supplier fails, a material fails, storm fails, the customer locks up for a few weeks."</p> <p>Sample 2</p> <p>"A fire is certainly a huge issue. I would also see these IT issues like viruses, Trojans, data encryption, hacker attack as important. Then blackout, power supply."</p> <p>Sample 5</p> <p>"And a warranty case could also be a big risk, that we have a problem in the field and run into a recall and the warranty costs become so immense, that we don't survive it."</p>
<p>Conclusion</p>	<p>Risks are manifold and their number is increasing. The difference between an unforeseeable crisis and a foreseeable risk is not known.</p>	

Question	Summary	Answers
Nr. 6	<p>Block 1: Managing a crisis situation</p>	<p>Sample 7 "The most important thing is to get the team together once, [...]"</p> <p>Sample 4 "The first steps then were to sit down again in our management team round."</p> <p>Sample 1 "One of the things we did right away, we expanded the management team."</p> <p>Sample 5 "And we then tried, because we already suspected it could go in that direction, to build up inventories."</p> <p>Sample 1 "You have to inform the customer once very quickly, [...]"</p>
<p>What were the steps taken after the outbreak of the crisis in March 2020 or other crises?</p>	<p>Summary</p> <ul style="list-style-type: none"> • Convene management team [5x] • Expand management team [3x] • Analyze situation [3x] • Define measures [3x] • Build inventory [3x] • External communication [3x] • Internal communication [2x] • Obtain information, use network [2x]. • Thin out contacts [2x] • Analyze impact [1x] • Distribute tasks [1x] • Establish basic principles [1x] • Reduce personnel costs [1x] 	<p>4 Important steps are: convening team, analysis, measures and communication</p>
Conclusion		

Question		Summary	Answers
Nr. 7 & 8 Block 2: Crisis management plan	What is your opinion on a crisis plan with predefined steps? Which influences does a crisis plan with predefined steps have on the crisis management (of a company)?	<ul style="list-style-type: none"> For crises that are well assessable - more detailed [3x]. For other crises - basic plan with general steps/recommendations/main points [7x]. Must be flexible and quickly adaptable [3x]. Important for response quality [1x] Important for reaction speed [2x] Actions outside the norm necessary [1x] Crisis is a big challenge, checklist useful [2x]. Crisis needs creativity [1x] Guideline/baseline plan must define/comply the team [1x]. Guide/basic plan must define/contain responsibilities [2x]. Guide/basic plan must define communication and information flow [2x]. Basic plan has positive influence [11x] Does not consider a crisis plan with predefined steps as valuable. [4x] 	Sample 2 "So I call it now the common denominator of all crises, where you say these are elementary things."
			Sample 12 "Then you have to adjust that with common sense. In some situations, it may be better just to give some offer of action."
			Sample 7 "You probably have to take actions that are outside the norm. Because a crisis situation is not a regular situation."
			Sample 13 "There's often something artistic about crisis management, and you have to be able to engage with the situation."
			Sample 8 "I don't think that a detailed crisis plan, especially for a crisis that has not occurred so far, at least not in the last few years, makes sense."
Conclusion	Only basic steps in the crisis plan guarantee flexibility, creativity and responsiveness.		

Question	Summary	Answers
Nr. 9	<p>Block 2: Crisis management plan</p> <p>Do you / Does your company have a crisis management plan with predefined steps prepared?</p>	<p>Sample 6</p> <p>"So I'm not aware of a general crisis plan now. As I said, we have, several specific plans."</p>
	<p>Magna Pressted has emergency plans for foreseeable risks required by the standard in place (IATF).</p> <p>Magna Presstec Extern:</p> <ul style="list-style-type: none"> Emergency plans for foreseeable risks required by standard in place (IATF) [3x]. The packaging industry also has emergency plans in place -strong insurance driven [1x] Tourism has no emergency plans [1x] 	<p>Sample 7</p> <p>"[...] created certain plans that must be covered by the standard."</p>
Conclusion	Crisis plan ≠ Emergency plan	

Question	Summary	Answers
Nr. 10	<p>Block 2: Crisis management plan</p> <p>What is the content of the crisis plan?</p>	<p>Sample 6</p> <p>"It must be defined who is in charge of the crisis management and who is responsible for it."</p> <p>Sample 12</p> <p>"At the beginning it is important to define what is a crisis, because if something goes wrong doesn't mean I'm in a crisis."</p> <p>Sample 13</p> <p>"It's always about people, and I have to keep that in mind in all my plans."</p> <p>Sample 3</p> <p>"[...], you can have 100 thousand guidelines, but you can't forget the human beings in the background."</p> <p>Sample 5</p> <p>"I can have a great plan on how to put out the house, but if I don't have a hose to the hydrant, then that doesn't help me."</p>
<ul style="list-style-type: none"> • Team constellation [4x] • Responsibilities [4x] • Contact persons/ partners [3x] • Note on humanity [3x] • Communication and information flow [2x] • Target [2x] • Resources needed [2x] • Definition from when on it is regarded as a crisis [2x] • Indication that focus must be on essential issues [1x]. • Opportunity recognition process [1x] • Situation analysis [1x] • Weigh possibilities [1x] • Measures/steps [1x] • Should consider people, machines, spare parts, suppliers [1x] <ul style="list-style-type: none"> • Key functions (who cannot be missed) [1x]. • Cost overview [1x] 	<p>The contents of a crisis plan ranges from the team constellation, over responsibilities and contact persons/ to the indication that people are involved and affected.</p>	
Conclusion		

Question	Summary	Answers
<p>Nr. 11</p> <p>Block 3: Crisis communication</p> <p>Which role does communication play in crisis management for you?</p>	<ul style="list-style-type: none"> Communication is important to disseminate information widely and to meet the information needs of all stakeholders. [10x] Communication structure must be in place and adaptable to stakeholder group [1x]. You need everyone who has information [1x] 	<p>Sample 2</p> <p>"And with all these things you must not forget to communicate to the next level - to the entire staff, because they also ask themselves questions and need to know where the ship is sailing to."</p> <p>Sample 6</p> <p>"You try to distribute the information as broadly as possible to let people know what's going on."</p> <p>Sample 11</p> <p>"Communication is also important in crises with the leadership staff, so they know what we're about and where we're going together."</p>
<p>Conclusion</p>	<p>Communication is key.</p>	

Question	Summary	Answers
<p data-bbox="344 2042 379 2101">Nr. 12</p> <p data-bbox="344 1928 379 1989">Block 3: Crisis communication</p> <p data-bbox="408 1574 895 1912">Do you / Does your company follow a certain crisis communication strategy?</p>	<ul data-bbox="352 987 730 1536" style="list-style-type: none"> Rules on who talks to whom (internal and external) to avoid misunderstandings [3x]. To distribute information quickly and broadly, team size is important (extended team) [1x]. Distinction between internal and external communication necessary. [2x] Timing plays a major role [1x] "Need to Know" principle for external communication [1x]. Spokesperson/Communications Director [1x] Acted situationally, no plan predefined [1x]. <p data-bbox="783 1240 810 1536">Communication channels:</p> <ul data-bbox="823 987 1262 1536" style="list-style-type: none"> Meetings (in some frequency e.g. daily) [3x]. Staff meeting [1x] WhatsApp groups [3x] Letters [2x] Newsletter [1x] Phone [1x] Email [1x] Notices [2x] Memos [1x] Intranet [1x] Video [1x] 	<p data-bbox="352 853 491 913">Sample 7</p> <p data-bbox="352 842 496 853">"That's why it's important to have clear rules for communication, who talks to whom so that there are no misunderstandings, who is the press spokesperson in certain areas."</p> <p data-bbox="520 853 647 913">Sample 1</p> <p data-bbox="520 842 632 853">"We expanded the management team from these 10 or so people to about 40 people, [...] then, of course, we picked up speed in communications."</p> <p data-bbox="676 853 831 913">Sample 13</p> <p data-bbox="676 842 799 853">"There is an outside and an inside communication. Both communication structures are fundamentally different."</p> <p data-bbox="887 853 1078 913">Sample 13</p> <p data-bbox="887 842 1078 853">"In a crisis, it is often also interesting not to say certain things, or to say them at the right time. Timing plays a big role. Communication and timing demand also a lot of experience. When do I play which ball? When do I send positive signals and when do I throw in the grenade?"</p> <p data-bbox="1107 853 1262 913">Sample 12</p> <p data-bbox="1107 842 1286 853">"Need to know" term, mention only those details that he needs to know. It is a dangerous term, because you have to think carefully about what you say, so I don't tell him too much, but on the other hand, of course, I don't tell him too little."</p>
<p data-bbox="1310 1939 1342 2101">Conclusion</p>	<p data-bbox="1310 786 1342 1391">A communication structure must be in place.</p>	

Question	Summary	Answers
<p data-bbox="352 250 399 418">Nr. 13</p> <p data-bbox="399 250 1332 418" style="text-align: center;">Block 4: Crisis management team</p> <p data-bbox="352 418 1332 929">Who are the key persons/bearers when it comes to crisis management (within your company)?</p>	<p data-bbox="352 418 1332 492">Core Team:</p> <ul data-bbox="352 492 1332 929" style="list-style-type: none"> • CEO [5x] • CHRO [5x] • COO [4x] • CFO [3x] • CTO [3x] • CQO [3x] • Safety Manager [3x] • Company doctor [3x] • CPO [2x] • CLO [2x] • CCO [1x] • Facility Manager [1x] • CSO [1x] • Board of Directors [1x] <p data-bbox="352 929 1332 963">Prerequisites:</p> <ul data-bbox="352 963 1332 1523" style="list-style-type: none"> • Team must include people who can take responsibility [2x]. • People who are in crisis team must have special personality traits (resilient, ability to make decisions quickly, willingness to invest a lot of energy, experience, empathy, communicative skills, seniority, trustworthiness, ideal age 45-52) [1x]. • Important for employees to have freedom of decision in their area of responsibility [1x]. <p data-bbox="352 1523 1332 1556">Example:</p> <ul data-bbox="352 1556 1332 1870" style="list-style-type: none"> • Core team (steering committee/management team) • 3 management teams founded, in order to always be effective & capable of doing business, because someone can always drop out (total 40 people; 3 from each department; shift wheel) 	<p data-bbox="352 929 510 1870">Sample 7 "You must have the right team, people who take over responsibility, and people who can make decisions on their own, independently in a certain area."</p> <p data-bbox="510 929 782 1870">Sample 13 "Not a question of position, but a combination of experience and personality. A certain personality profile is required, these people must have a penchant for brutal solutions, be fast and highly communicative. People who exude seniority, it's about trust to suppliers, to customers to own employees. People who radiate security."</p> <p data-bbox="782 929 981 1870">Sample 1 "Someone can always be absent and we always want to remain effective. That means, we want to create three teams and all three teams have the full power to run this plant."</p> <p data-bbox="981 929 1332 1870">Sample 4 "It was then that we, of course, immediately tried to keep our top management team capable of making decisions, where we said we must not all three fail at the same time, then we would no longer be capable of being authorized to sign and also no longer capable of acting accordingly with our plant."</p>
Conclusion	The top management (C-level) must be anchored in the core crisis management team.	

Question		Summary	Answers
Nr. 14	Block 4: Crisis management team	<p>Would it make sense for the company to call in external consultants in a crisis?</p>	<p>Sample 13</p> <p>"Well, mainly because it's often their own heads come to a deadend. The existing management has a gigantic breach of trust when it comes to a crisis in which the continued existence of a company is at risk. In order to absorb this breach of trust, it is often extremely helpful to bring in external consultants who have the vita to give the customers, the suppliers, the banks and the owners confidence again, because they have the experience, the knowledge from the industry to find solutions here."</p>
			<p>Sample 14</p> <p>"Consulting companies, from the method, already have the view of the essential, Pareto principle."</p>
			<p>Sample 9</p> <p>"It certainly varies from case to case. It really depends on the crisis."</p>
			<p>Sample 14</p> <p>"Depends on how much know-how is available internally. For large companies there is rather less need. Makes sense to implement certain things. And also to get justification for certain projects."</p>
Conclusion		External consulting can be helpful, but must be decided depending on situation and know-how.	

Question		Summary	Answers
Nr. 15 & 16 Block 4: Crisis management team	Do you / Does your company currently have a crisis team which is responsible for managing a crisis? What is the number of team members your / your company's crisis team has and why?	<ul style="list-style-type: none"> • Yes, all respondents had a crisis management team [1x]. • Core team around 10 people; number of 10 people was felt to be good [6x]. • Core team around 7-8 people; number of 7 people good to work efficiently as a team [1x]. • Team with 4 people [1x] • Team with 2 persons [1x] • Team needs to be expanded depending on the situation [1x]. • Expanded team 40 people (to increase communication speed and thin out contacts by teams of 3) [3x]. • Extended team 15-20 people (for information purposes) [1x]. • Optimal number of people in team 5-10 [1x]. • Optimal number of people in team 5 [1x]. • Optimal number of people in team 4-6 [1x]. 	Sample 6 "Five to 10, because too many cooks spoil the broth."
			Sample 13 "Size range between 4 to 6 is good. Often, depending on the case, the team also needs to be expanded when issues simply become too complex."
			Sample 1 "We expanded the management team from these 10 or so people to about 40 people, [...] then, of course, we picked up speed in communications."
			Sample 9 "I would say five, from the gut. Because then, of course, it becomes difficult in terms of complexity."
			Sample 4 "I think that a number of 10 people is appropriate."
Conclusion		Core team: 4 - 10 people Extended team: 15 - 40 people	

Question	Summary	Answers
<p>Nr. 17</p> <p>Block 5 Changes</p> <p>When you think about the Covid-19 and other crises, which changes have taken place in your company / for companies which occurred due to Covid-19 or previous crises?</p>	<ul style="list-style-type: none"> • Working method [8x] • Communication [4x] • Stock was built up [3x] • Social components (people alienate/personal contact missing) [3x]. • Expansion of the management team [1x] • Cooperation with customers [1x] • Employees place more value on work-life balance [1x] • Employees reduced [1x] • Increased demand for electronics/computer equipment, which led/lead to a shortage of microchips (semiconductors) [1x]. • Accelerator for mega trends in society (e-mobility, decarbonization, digitalization) [1x]. • Potentially changing market dynamics [1x]. • Intranet created to inform people [1x] • Sourcing [1x] 	<p>Sample 2 "I mean the way of working has become very much digital. That means it was an accelerator for a certain way of working, starting with meetings: Meetings were always just on the spot on a meeting table [...]"</p> <p>Sample 1 "Yes, of course, the whole issue of communication, where yes, in the past, without travelling and without physically meeting the customers or clients, practically nothing happened."</p> <p>Sample 10 "We definitely stockpiled once for raw materials. Raw materials, auxiliary materials and things like that, operating supplies."</p> <p>Sample 1 "The negative aspect will perhaps be that we are very estranged at the moment to some extent."</p> <p>Sample 9 "I think it has definitely accelerated the mega trends in our society. These include decarbonization and digitalization. Whether that's true and how sustainable it is, has to be proven first, but, of course, that also does something to us as a company when we're in the middle of it."</p>
Conclusion	Changes form the basis for opportunities. (for the reason of this conclusion see question nr. 18 & 20)	

Question	Summary	Answers
<p style="text-align: center;">Nr. 18</p> <p style="text-align: center;">Block 6: Opportunities</p>	<p>If you read the statement "Crisis- danger and opportunity at the same time", what do you think about that?</p>	<p>Sample 8 "If I now attribute it only to this pandemic, the effect of the crisis is certainly long-lasting and it has a rather negative connotation for me than the positive aspects that one derives from it. That's more of a purpose optimism, [...] the effect from the crisis certainly predominates."</p> <p>Sample 10 "That the phrase comes from a person who doesn't have to manage the crisis, he's not on the crisis team when saying that."</p> <p>Sample 12 "Crisis can be an opportunity and a danger, depending on how you take it. You can't be afraid."</p> <p>Sample 9 "Sure it is a chance, namely, also from a longer temporal point of view, because, thank God, every crisis eventually passes."</p> <p>Sample 14 "I think that is true. Why? Because in a crisis there is a greater will for change."</p>
Conclusion	Despite the rejection of the mentioned statement, all respondents subsequently named opportunities resulting from a crisis. (see question nr. 20)	

Question	Summary	Answers
<p data-bbox="355 250 384 443">Nr. 19</p> <p data-bbox="355 488 384 936">Block 6: Opportunities</p> <p data-bbox="384 250 416 1888">Do you consider a crisis as an opportunity for a company?</p>	<ul data-bbox="355 488 416 936" style="list-style-type: none"> <li data-bbox="355 488 384 936">• Do not view a crisis as an opportunity for companies [0x] <li data-bbox="384 488 416 936">• View a crisis as an opportunity for companies [12x]. 	<p data-bbox="355 936 384 1093">Sample 6</p> <p data-bbox="355 1093 384 1249">Sample 2</p> <p data-bbox="355 1249 384 1406">Sample 4</p> <p data-bbox="355 1406 384 1563">Sample 5</p> <p data-bbox="355 1563 384 1720">Sample 13</p> <p data-bbox="384 936 416 1093">"Absolutely, every crisis is always an opportunity."</p> <p data-bbox="384 1093 416 1249">"In any case, this crisis has made us stronger."</p> <p data-bbox="384 1249 416 1406">"Definitely yes. Home office, training definitely yes. But of course always to a certain degree, however, we see an opportunity there."</p> <p data-bbox="384 1406 416 1563">"Of course we have identified some chances too, of course not immediately, that has come much later."</p> <p data-bbox="384 1563 416 1720">"A crisis managed is an opportunity taken."</p>
Conclusion	All respondents see potential opportunities in crises.	

Question		Summary	Answers
Nr. 20	Block 6: Opportunities What were opportunities that resulted from changes in your company / for companies due to Covid-19 or other crises?	<p>Opportunities resulting from change - working method:</p> <ul style="list-style-type: none"> Increased efficiency in the way we work [3x] Increasing the flexibility of the employees [3x]. In the future, using camera systems and glasses to perform digital plant/customer visits [1x]. Increasing efficiency through home office [1x] Increased motivation through improved work-life balance [1x] <p>Opportunities resulting from change - Communication:</p> <ul style="list-style-type: none"> Improving the communication skills of employees [1x]. Reduction of travel costs due to reduction of business trips, enabled by increased digital communication [2x]. Improve partnership and collaboration with the customer [1x]. Improvement of the information level of the employees (creation of an intranet) [1x]. <p>Opportunities resulting from change - expanding the management team:</p> <ul style="list-style-type: none"> Increasing the flexibility and strength of the company and the management team (example: three general managers instead of one; three logistics managers instead of one) [1x]. Increase in team cohesion [1x] Personal and personnel development (training program for upcoming leaders) [2x]. <p>Other opportunities due to crises:</p> <ul style="list-style-type: none"> Learning opportunities [6x] Restructuring [1x] Cost reduction through automation of certain activities (conversion of payslips to e-paper [1x]. Enhancing reputation through successful crisis management [1x]. 	Sample 1 "And it has led to, I mean I can't prove it scientifically, it could be coincidence, but it has led to an increase in efficiency."
			Sample 3 "I have more peace at home, I don't get distracted, the output is much better."
			Sample 1 "[...], you have a closer and better cooperation with the customer, you become yes much more of a partner, because you are also together in the same boat, [...]."
			Sample 10 "Communication has also become a bit more personal."
			Sample 2 "[...], through this team division, that we have become more flexible and stronger, because we suddenly had three managing directors instead of one."
Conclusion	Increased efficiency, increased flexibility, cost reduction and team building are the top opportunities a crisis can bring.		

Question		Summary	Answers
<p>Nr. 21</p> <p>Block 6: Opportunities</p>	<p>How can the identification of opportunities (for a company) be implemented into a crisis plan?</p>	<ul style="list-style-type: none"> • Not into a plan [4x] • When the crisis is over, then a separate task is finding opportunities [4x]. • Anchor opportunity identification through lessons learned after the crisis [1x]. • Finding ways to look at and question things completely differently over and over again [1x]. • Define a process to continuously search for opportunities [1x] • Opportunity identification by explicitly building learning loops into crisis plan and thinking about them comprehensively (outside in driven) [1x]. • Identify opportunities in the course of the management review [1x]. 	<p>Sample 10</p> <p>"[...] when you have a crisis you have to survive once."</p>
			<p>Sample 7</p> <p>"[...] I would not do that. First of all, you have to see that you keep the damage as low as possible. [...] And then you should reflect."</p>
			<p>Sample 3</p> <p>"I wouldn't put that in the plan, for me, that's its own task, this opportunity finding, when this crisis is over [...]."</p>
			<p>Sample 4</p> <p>"[...] in the daily grind [...], we must surely succeed in finding ways and possibilities to look at things completely differently again and again and to question whether that is right at all."</p>
			<p>Sample 8</p> <p>"And that's when you explicitly build learning loops into the crisis plan [...]."</p>
<p>Conclusion</p>	<p>Opportunity identification should be embedded in the crisis management strategy after the critical phase (crisis response).</p>		

Question	Summary	Answers
<p data-bbox="341 248 368 1339">Nr. 22</p> <p data-bbox="368 248 400 1339">Block 6: Opportunities</p> <p data-bbox="400 248 1350 398">How could companies strengthen their position in order to emerge stronger from a crisis situation in the future?</p>	<ul data-bbox="341 398 663 1529" style="list-style-type: none"> • Contribute experiences/insights/lessons learned [6x]. • Do not be afraid of failure [1x] • Faith and will to look for opportunities [1x]. • Proactivity [1x] • Teambuilding [1x] • Communication and information sharing to keep issues present [1x]. • Set up more broadly (promote people, upcoming leaders) [1x]. • Employee development (job rotation and trainings) [1x] • Adapt emergency plans [1x] • See opportunity in crisis [1x] • Optimize communication [1x] • Best practice from other industries [1x] • Constructively prepare for upcoming events so that I can face a crisis "relatively calmly" [1x]. • Strategic growth (scaling) to be crisis-proven [1x]. • Strengthen corporate culture (DNA) by eliminating the damaged parts of the corporate culture [1x]. • Lessons learned must not fizzle out [1x] • Monitor market and trends to be successful in the future [1x] 	<p data-bbox="341 931 368 1895">Sample 4</p> <p data-bbox="368 931 400 1895">"The question afterwards is what you have learned from it and where you might be able to position yourself more strongly for the future."</p> <p data-bbox="400 931 432 1895">Sample 8</p> <p data-bbox="432 931 464 1895">"[...] generally answered [...] the topic of structured learning."</p> <p data-bbox="464 931 496 1895">Sample 14</p> <p data-bbox="496 931 528 1895">"Important that lessons learned don't go to waste. Also watching market and trends important to be successful in the future."</p> <p data-bbox="528 931 560 1895">Sample 1</p> <p data-bbox="560 931 592 1895">"[...] take a few principles, we roll that out to 40 leaders, they talk it through with their teams, [...]."</p> <p data-bbox="592 931 624 1895">Sample 12</p> <p data-bbox="624 931 663 1895">"So in that direction, I need to prepare myself constructively so that I can face a crisis "relatively calmly." then"</p>
Conclusion	The opportunities to emerge stronger from a crisis are numerous if lessons are learned and applied.	