Resilience capabilities as antecedents for organisational flexibility within secondment companies

Master Thesis Research
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Content

1. Introduction:

Business environments are rapidly and chaotically changing over time. Unexpected crises, like the COVID-19 pandemic or the financial crisis of 2008, show that a business needs to be able to quickly adapt their strategy in order to survive (Meceli et al., 2021; Pal et al., 2013). However, not only crises, but also rapid and discontinuous changes from innovations can make unprepared organisations obsolete (Do et al., 2021). Therefore, in accordance with the dynamic capabilities view, organisations need to be adaptable to remain competitive. If an organisation cannot adapt to an unexpected crisis it will lose its competitive advantage. Furthermore, it may not survive within the unstable business environment (Chakrabarti, 2015). Therefore, unstable business environments create a need for organisational resilience that allow organisations to survive unforeseen events (Duchek, 2019).

Within this thesis, organisational resilience is defined as; 'the incremental capacity of an organization to anticipate and adjust to unforeseen changes in the environment' (Ortiz-de-Mandojana et al., 2015). According to the resilience literature, organisational resilience is formed by resilience capabilities. The configuration and use of these resilience capabilities makes an organisation resilient to unexpected crisis's (Madini & Parast, 2021). This makes it possible to link the dynamic capabilities view with resilience capabilities. Because resilience capabilities, like dynamic capabilities, can be created, reconfigured and used within an organisation (Madini & Parast, 2021; Darkow, 2018).

Within the resilience literature, there is a lack of knowledge around organisational level outcomes of resilience capabilities. One of these outcomes of resilience capabilities is organisational flexibility. According to the literature, the presence and use of organisational resilience capabilities influence the way in which organisation reacts and changes during an unexpected crisis (Madini & Parast, 2021). However, it is unclear which resilience capabilities truly influence organisational flexibility (Reatze et al., 2021; Sarta et al., 2018). Therefore, within the literature there is a gap of knowledge about what types of resilience capabilities are antecedents of organisational flexibility (Sarta et al., 2018; Reatze et al., 2021). In order to attend to this gap within the literature, more empirical studies need to be made on the use of resilience capabilities in unexpected crisis's (Duchek, 2019). Therefore, the following research goal has been formulated for this thesis: *"To study how resilience capabilities influence organisational flexibility in unexpected crisis's. In order to define an organisational level relation between resilience capabilities as antecedents to organisational flexibility. This to further develop both the organisational resilience and the organisational flexibility literature."* Based on this research goal. The following research question has been formulated: *"How do resilience capabilities influence organisational flexibility within organisations during an unforeseen crisis?"*

1.1 Theoretical relevance:

The research question within this thesis would bring to light new and relevant insights on resilience capabilities and organisational flexibility. Firstly, it would more clearly define how different resilience capabilities could lead to organisational flexibility. Which gives a better understanding of the relationship between resilience capabilities and flexibility as a firm-level outcome (Raetze et al., 2021; Madini & Parast, 2021). Secondly, due to few studies based on actual unexpected crisis situations, empirical insights on the different types of resilience capabilities is limited. This study therefore bases its results on the experience of secondment companies dealing with the impact of the COVID-19 crisis. In order to more clearly define the meaning of the different resilience capabilities used in crisis's (Raetze et al., 2021; Duchek, 2019). Lastly, this study will further expand on the antecedents of organisational flexibility. By attempting to define why and how individual resilience capabilities could influence organisational flexibility (Medoza & Pelaez, 2021; Sarta et al., 2018).

1.2 Practical relevance:

The first reason this study is relevant for practice is because it further operationalises resilience capabilities within organisations. When resilience capabilities can be more clearly identified, it would be easier for companies to implement these capabilities to create more flexibility (Medoza & Pelaez, 2021; Duchek, 2019). The second reason this study could be used in practice is that it gives examples on the use of different resilience capabilities in unexpected crisis. This is because the study uses empirical insights from two companies which have dealt with the COVID-19 crisis (Madini & Parast, 2021; Duchek, 2019). Finally, this study tries to help organisations in choosing the right types of resilience capabilities to create flexibility in crisis situations. This by looking at wich resilience capabilities influence organisational flexibility (Medoza & Pelaez, 2021; Duchek, 2019; Sarta et al., 2018).

1.3 Outline of the thesis:

Within the next chapter of this thesis the theoretical background of this study is described. Hereby looking at the dynamic capabilities view, resilience capabilities and organisational flexibility. The third chapter focuses on the used research methodology of this study. Focusing on research design and data collection. Within chapter four, the analysis and results will be revealed. After this chapter conclusions will be made and discussed within chapter five.

2. Theoretical background

For this study, literature on the dynamic capabilities view, organisational resilience and organisational flexibility have been used as the theoretical background. In the first paragraph of this chapter, a link between the dynamic capabilities view and both organisational resilience and organisational flexibility is made. In order to further argument the theoretical fit between the variables. Within the second paragraph the literature needed to operationalize the concept of organisational resilience for this research is explained. The third paragraph explains the concept of organisational flexibility as an outcome of resilience capabilities. In the fourth paragraph, the collected literature from the previous paragraphs is used to create a conceptual framework for the thesis research.

2.1 The dynamic capabilities view on organisational resilience:

Within the scientific literature, the dynamic capabilities view explains how organisations use their capabilities to react to changes in their external environment (Okhuysen & Eisenhard, 2002). According to the theoretical framework of the dynamic capabilities view, organisations react with their capabilities on environmental changes via sensing, seizing and transforming (Teece et al, 1997). *Sensing* focuses on the organisations ability to identify changes in its external environment. After identifying these changes, the organisation then *seizes* opportunities from these external changes. To do this, organisations *transform* their resources and capabilities. Which leads to the creation of competitive advantage (Chakrabarti, 2015; Eisenhard & Martin, 2000). To further operationalize the concept of dynamic capabilities, this thesis defines dynamic capabilities as; "The way in which firms integrates, builds, and reconfigures internal and external competences to address changing business environments" (Teece et al, 2016).

Within the literature, the dynamic capabilities view and organisational resilience are both concepts that put an emphasis on reacting to environmental changes (Teece et al, 2016; Ortiz-de-Mandojana et al., 2015). However, resilience capabilities only focus on how organisations react to unforeseen crisis's (Duchek, 2019). Hereby, the alignment and presence of resilience capabilities effect how organisations reconfigure during crisis's (Madini & Parast, 2021; Darkow, 2018; Eisenhardt & Martin, 2000). Dynamic capabilities, however, address all types of changes in business environments. Therefore, organisational resilience capabilities can be seen as a subset of the broader dynamic capability framework. Which only focuses on how organisations use certain capabilities to respond to unexpected crisis's (Duchek, 2019; Darkow, 2018; Teece et al, 2016).

Within the literature, organisational flexibility is linked with the dynamic capabilities view through reconfiguration (Ambrosini & Bowman, 2009). The organisations ability to reconfigure (or transform) its resources and capabilities has also been further expanded upon. This has been done by splitting the concept into a integrating capability and a coordinating capability (Pavlou & Sway, 2011). According to the literature, Integrating capabilities are seen as the ability to reconfigure new resources within existing operations of organisations (Pavlou & Sway, 2011; Okhuysen & Eisenhard, 2002). Whereas, coordinating capabilities focus on the organisational ability to coordinate old and new resources within their existing operations (Pavlou & Sway, 2011; Helfat & Peteraf, 2003). Both the integrating- and coordinating capability lead to organisational flexibility by making the organisation able to adapt to its external environment (Ambrosini & Bowman, 2009; Okhuysen & Eisenhard, 2002). Therefore, according to the dynamic capabilities view, organisational flexibility is an outcome. Because the configuration of certain types of capabilities creates organisational flexibility (Chakrabarti, 2015; Ambrosini & Bowman, 2009; Okhuysen & Eisenhard, 2002).

To conclude, resilience capabilities fit within the framework of the dynamic capabilities view as a subset of dynamic capabilities used during crises. The use of resilience capabilities during a crisis leads to different outcomes within a company. Because organisational flexibility, which is the ability for organisations to reconfigure, is an outcome of dynamic capabilities (Ambrosini & Bowman, 2009). It can be proposed that resilience capabilities, during an unforeseen crisis, influence organisational flexibility within the company (Darkow, 2018; Okhuysen & Eisenhard, 2002). Therefore the following proposition has been created:

Proposition A: The use of resilience capabilities influence the organisational flexibility within a company during an unforeseen crisis.

2.2 Organisational resilience

As previously stated within this thesis, resilience is defined as; 'the capacity of an organization to anticipate and adjust to unforeseen events in the environment' (Ortiz-de-Mandojana et al., 2015). However, within the literature there are different views on resilience. To operationalize organisational resilience for this thesis research , the most important views will be highlighted. This to answer the secondary question; *"what are resilience capabilities?"* Which needs to be answered to conduct the research within this thesis. Therefore, the different types of resilience capabilities are described in this chapter. This way, organisational resilience can be analysed during this thesis research.

2.2.1 Organisational resilience capabilities:

Within the article of Madini & Parast (2021), six organisational capabilities are described that enhance resilience. To further define these resilience capabilities with additional literature, the article of

Vakilzadeh & Haase (2020) has been used to create a complete picture of these capabilities. Therefore, the following six resilience capabilities are defined as;

- <u>Leadership</u>: which is defined as building confidence in and giving social support to subordinate managers and employees in times of crisis, strengthening of risk management skills and most importantly facilitating cognitive, emotional and behavioural adaptation to implement changes in times of crisis;
- <u>Business processes:</u> which is defined as implementing statistical and information technology capabilities to positively determine risk of disruptions and their impact on organisational systems and resources;
- <u>Resources:</u> which is focused on redundancy of resources that allow firms to absorb initial shocks of unforeseen disruptions. Furthermore, if resources are limited, firms can be seen as vulnerable to abrupt changes. Resources consist out of two types. The first type is tangible resources, which can be touched and seen. Examples of these are structures, inventory and capital. The second type are intangible resources, which cannot be touched or seen. Examples of these are relationships and knowledge;
- <u>Governance:</u> Which can be seen as the governance and decision making principles an organisation uses during crisis. Within these principles are formal mechanisms. These formal mechanisms are used to direct the organisation towards making a decision during a crisis. Examples of these formal mechanisms are meetings, online networks or organisational events;
- <u>Collaboration:</u> Which is defined as knowledge- and information sharing, communication and joint planning within an organisation between departments;
- <u>Infrastructures:</u> which are the physical or intangible systems and assets whose failure or damage would have a critical impact on the operations and business performance of a firm. An important aspect of resilience within these elements are security and safety systems.

According to the literature, the presence and alignment of these six resilience capabilities influence the way in which organisations reconfigures during an unforeseen crises. Which makes it possible for these resilience capabilities to influence organisational flexibility (Madini & Parast, 2021; Ambrosini & Bowman, 2009). This leads to the following proposition:

Proposition B: The presence and alignment of each type of resilience capability (leadership, business processes, resources, governance, collaboration and infrastructure) influences organisational flexibility within a company during and unforeseen crisis.

2.3 Resilience capabilities and organisational flexibility

For this thesis study it is important to clearly define the dependent variable in order to formulate conclusions during the research. Therefore, the following secondary question was added; *What is organisational flexibility?* Additionally, due to the broadness and different views on resilience capabilities, it is difficult to explain which resilience capabilities influence organisational flexibility (Raetze et al., 2021). Because the goal in this study is to define this influence, the following secondary question has been formulated; *How do resilience capabilities influence organisational flexibility?* Within this chapter both questions will be answered.

2.3.1 Organisational flexibility

Within this thesis, organisational flexibility is defined as; The organisations ability to reconfigure (or transform) its resources and capabilities in order to adapt to environmental changes (Medoza & Pelaez, 2021, Ambrosini & Bowman, 2009). This ability to reconfigure consist out of the organisations ability to coordinate and integrate its resources and capabilities (Pavlou & Sway, 2011). According to the literature, the coordinating capability of an organisation focuses on the organisations ability to coordinate old and new resources within their existing operations. Which can be assessed by the ease in which organisations can plan, deploy and use their resources to adapt (Grogaard et al., 2019, Pavlou & Sway, 2011). On the other hand, integrating capabilities are seen as the ability to reconfigure new resources or capabilities within existing operations of organisations. In practice, this can be seen by the rate in which new resources or capabilities are implemented and used within the organisation (Grogaard et al., 2019, Pavlou & Sway, 2011). In order for an organisation to be flexible both coordinating- and integrating capabilities need to be present. Therefore, organisational flexibility consists out of the ability that organisations have to coordinate and integrate their resources and capabilities (Medoza & Pelaez, 2021; Sarta et al., 2018). This leads to the following proposition:

Proposition C: Organisational flexibility consists out of both the ability to coordinate and the ability to integrate resources and/or capabilities within the company.

Between the two aspects of organisational flexibility an additional influence is described within the literature. This is the influence that integration has on the ability to coordinate resources and capabilities. According to the article of Pavlou & Sway (2011), due to the integration of new resources, a need for the synchronization of these new resources within the existing operations is created. This then creates an urge for coordination. Which shows that the integration ability influences the ability of an organisation to coordinate. However, due to the focus on how resilience capabilities influence organisational flexibility within this thesis. this additional influence will not be accounted for.

2.3.2 Resilience capabilities influence on organisational flexibility

Within the literature, certain types of resilience capabilities influence the ability of organisations to coordinate and integrate resources and capabilities. In order to conduct research and crate a framework on how resilience capabilities influence organisational flexibility, these connections are explained in this chapter.

According to the literature, some resilience capabilities have an influence on the integration ability of an organisation. This is because these resilience capabilities influence the ability to integrate new resources and capabilities within a company (Madini & Parast, 2021; Pavlou & Sway, 2011). Because the integration of resources and capabilities is a part of organisational flexibility. It can be assumed that these resilience capabilities influence organisational flexibility (Medoza & Pelaez, 2021; Pavlou & Sway, 2011). The resilience capabilities that influence the integration ability of an organisation are the following (Madini & Parast, 2021; Grogaard et al., 2019):

1. Leadership: The leadership resilience capability uses managerial activities to facilitate and support employees in the integration of new resources or capabilities during crises. In this way the leadership resilience capability influences the rate at which new resources or capabilities are integrated within the company and can therefore influence organisational flexibility;
2. Governance: Governance resilience capabilities uses formal organisational decision making mechanism to establish what new resources or capabilities are needed to be integrated within a company. Therefore, governance capabilities are used legitimise the integration of new resources or capabilities during crisis. Which influences organisational flexibility;
3. Collaboration: The collaboration resilience capability focuses on information-sharing, joint planning and communication within the organisation to allow new resources and capabilities to be integrated across a company during a crisis. This means that collaboration influences organisational flexibility via the spread of integration within the company.

Within the literature, arguments have been made about a combined influence that all three resilience capabilities have on the integration ability of an organisation. This is because the use of leadership capabilities can influence the use of governance- and collaboration capabilities on the integration ability and vice versa. For example, the support created by managerial activities influence how information sharing is done within the company. Which would in turn influence decision-making process (Madini & Parast, 2021; Pavlou & Sway, 2011). In order to conduct this research on the influences of resilience capabilities on organisational flexibility, the following proposition has been constructed:

Proposition D: The resilience capabilities of leadership, governance and collaboration influence organisational flexibility via their combined influence on the integration ability of an organisation.

In addition to resilience capabilities that influence the integration ability of an organisation there are also resilience capabilities that influence the coordination ability of an organisation. This is because these resilience capabilities influence how organisations can plan, deploy and use their resources to adapt to the environment (Madini & Parast, 2021; Pavlou & Sway, 2011). Because the coordination of resources and capabilities is a part of organisational flexibility, it can be assumed that these resilience capabilities influence organisational flexibility (Grogaard et al., 2019; Pavlou & Sway, 2011). The resilience capabilities that influence the coordination ability of an organisation are the following (Madini & Parast, 2021; Grogaard et al., 2019):

1. Business process: The resilience capability of business process gives insights in the effect that a crisis has on the resources and capabilities of an organisation. Because organisations gain these insights, they can plan out and deploy their resources where needed. Due to this, it is easier for organisations to coordinate resources during a crisis. Which influences the flexibility of an organisation;

2. Infrastructure: The infrastructure resilience capability allow organisations to deploy and redeploy their resources at systems that need to be maintained during an unforeseen crisis. This means that an organisation can quickly adapt to unforeseen changes during a crisis. Therefore, infrastructure influences organisational flexibility;

3. Resources: The resilience capability of resources show what type of resources are present and how they are divided across the organisation. This enables organisations to use the correct type of resources at the correct place in the organisation. Thus making it easier for organisation to coordinate. This means that the resilience capability of resources influences organisational flexibility.

Similarly to the previous section of this chapter, arguments have been made about a combined influence that all three of these resilience capabilities have on the coordination ability of an organisation. This is because the use of business process capabilities can influence the use of infrastructure and resource capabilities and vice versa. For example, the insight from business processes influence how the deployment of resources and capabilities is done within the company. Which, in turn, influences the divide of resources within the company (Madini & Parast, 2021; Pavlou & Sway, 2011). In order to conduct this research and create a conceptual framework, the following proposition has been constructed:

Proposition E: The resilience capabilities of business processes, infrastructure and resources influence organisational flexibility via their combined influence on the coordination ability of an organisation.

To conclude, it is expected that combinations of resilience capabilities influence aspects of organisational flexibility. However, this influence needs to be further studied. In order to clearly define how organisational resilience influences organisational flexibility.

2.4 Conceptual framework

From the theoretical background a conceptual framework can be created (see figure 1). This conceptual framework can then be analysed during the research process to formulate conclusions on the research topic. Within the conceptual framework, the resilience capabilities are expected to influence the organisations ability to integrate and coordinates its resources and capabilities (Madini & Parast, 2021; Ambrosini & Bowman, 2009). This is done in two ways. First, the resilience capabilities of leadership, governance and collaboration have a combined influence the ability to integrate resources and capabilities within an organisation (see chapter 2.3.2). Second, the business process, resource and infrastructure resilience capabilities influence the organisation ability to coordinate its resources and capabilities (see chapter 2.3.2). Because organisational flexibility consists out of the ability to integrate and coordinate resources and capabilities (see chapter 2.3.1). It can be presumed that the resilience capabilities influence organisational flexibility. Therefore, based on the literature and propositions within this chapter, the following conceptual framework has been created:
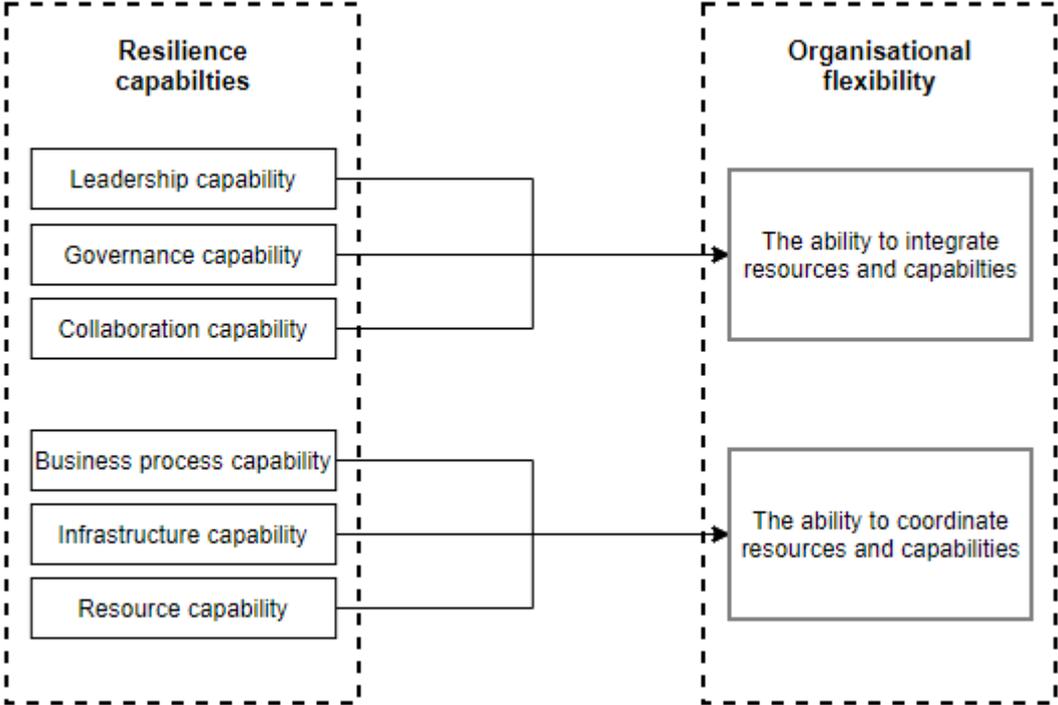

Figure 1: Conceptual framework about the influences of resilience capabilities on organisational flexibility.

3. Methodology

Within this chapter the methodology of the research process will be explained. First, the choice of the research method will be explained. When that is explained, a description of the research setting will be given. Then, the data collection method is explained. This is followed by the operationalization of the different concepts that needed to be further explored within this research. After this explanation the analysis method will be elaborated upon.

3.1 Research method choice: qualitative approach via case study

To answer the central question of this thesis, a qualitative research approach has been used. The reason for this approach, is that the objective of this thesis is to further expand upon the existing knowledge on organisational resilience and organisational flexibility. Which in this thesis is done by studying two organisations within the secondment sector that have experienced the COVID-19 pandemic. Therefore, a qualitative research method would be the best approach. Because it allows the researcher to take an in depth look at this specific context. In order to gain new insights on organisational resilience and organisational flexibility (Myers, 2020; Vennix, 2019). Furthermore, due to the exploratory nature of this research topic a quantitative approach would not fit. Because a quantitative study focuses on generalizing a theory across a large population (Myers, 2020). Additionally, findings on resilience capabilities and organisational flexibility are reliant on how organisations perceive concepts of collaboration, leadership, governance and integration (Madini & Parast, 2021). A qualitative research is better fitted to analyse non-numerical data than quantitative research, which is focused more on predefined numerical measurements. This means that a qualitative research, due to is focus on expanding knowledge and ability to translate non-numerical data, has been opted as the best approach for this thesis research (Myers, 2020; Vennix, 2019).

Within this thesis, inductive logic is used to expand upon the existing knowledge of resilience capabilities and organisational flexibility. The reason for this is that observed data, gathered from a specific context, is applied to enhance the constructed conceptual framework (see chapter 2.4). Which will then formulate general conclusions on how resilience capabilities influence organisational flexibility (Vennix, 2019). Within this research setting, deductive logic wouldn't fit. Because it focuses on testing a general premise about the causal relationship between variables. However, no causal relationship has been established so far. Therefore, deductive logic is not used within this research (Vennix, 2019). Additionally, abductive logic cannot be used because this thesis research focuses on a complete set of observations derived from existing knowledge. Which means that no conclusions are drawn from incomplete data sets. Therefore, inductive logic was used within this qualitative research approach (Myers, 2020; Vennix, 2019).

From the different types of qualitative research methodology, the choice has been made for a case based study. The research method of a case study seeks to gain a better understanding in a subject or phenomenon. Which is done by analysing occurrences of this subject or phenomenon within a predetermined context (Myers, 2020; Vennix, 2019). Because the research of this thesis focuses on the experience of secondment companies dealing with the impact of the COVID-19 crisis, a predetermined context was already present. Therefore an exploratory case base study was seen as a suitable method of research. Because it seeks to further develop the existing knowledge on resilience capabilities and organisational flexibility within the context of an unforeseen crisis (Myers, 2020). To conduct this exploratory case based study, a multiple case study between two secondment companies during the COVID-19 crisis will be done. This way a comparison between the way in which both companies used resilience capabilities to manage the COVID-19 crisis can be made (Vennix, 2019). Which makes it possible to gain further insight in which resilience capabilities influence organisational flexibility (Myers, 2020; Vennix, 2019). Lastly, the results of the case study will be on a retrospective basis. The reason for this, is that the COVID-19 pandemic has already occurred. Which makes it difficult to gain any concrete insights on the positions both secondment companies took before and during the pandemic (Myers, 2020).

3.2 Research setting

Within this chapter, the criteria for the selection of both secondment companies will be described. After the criteria have been given the selected secondment companies which described.

3.2.1 Criteria case selection

For this case study, two comparable SME's active within the Dutch secondment sector need to be selected and researched. Both organisations needed to have been impacted by the consequences COVID-19 crisis. To fit within the theme of organisational resilience, The COVID-19 crisis needed to have had a broad internal impact on both organisations (Reatze et al., 2021). Additionally, to fit within the theme of organisational flexibility, both companies needed to have reacted on the COVID-19 crisis in two ways (Grogaard et al., 2019, Pavlou & Sway, 2011);

1. The company needed to have coordinated its resources and/or capabilities to adapt to the changes created by the COVID-19 crisis;
2. The company needed to integrate new resources and/or capabilities to adapt to the changes created by the COVID-19 crisis.

If the following criteria are present, a comparison can be made due to a similarity within the predefined context of both cases (Myers, 2020; Vennix, 2019). However, to make this comparison complete, there needs to be difference within the presence and use of resilience capabilities within both

companies. This way conclusions can be made on the influence resilience capabilities have on organisational flexibility (Madini & Parast, 2021; Myers, 2020; Vennix, 2019).

3.2.2 Case selection

Within this research two comparable SME's active within the Dutch secondment sector where selected for data collection and analysis. Both companies went through the unexpected COVID-19 pandemic and afterwards experienced growth within the company. (Madini & Parast, 2021; Grogaard et al., 2019). The first company, named iTrainee, experienced problems with their information systems due to the COVID-19 crisis. Therefore, iTrainee needed to coordinate and integrate new resources and capabilities to change this information system (see appendix C). The second company, named NRG-Office, had difficulty with maintaining their cultural identity during the COVID-19 crisis. This led to NRG-Office losing employees, due to a lack of involvement within the company. NRG-Office, therefore, needed to coordinate and integrate new capabilities and resources to attract and maintain employees during the COVID-19 crisis (see appendix).

There are several reasons why these two SME's where selected for this case study. Firstly, the SME's both active within the secondment sector and experienced the consequences of the COVID-19 crisis. Therefore, both companies where active within a similar contextual environment. Which is needed to make a valid comparison (Myers, 2020; Vennix, 2019). Secondly, both companies underwent challenges during the COVID-19 pandemic whereby both the ability to coordinate and integrate resources and capabilities where needed. Therefore, both companies showed a need for organisational flexibility during the COVID-19 crisis (Grogaard et al., 2019; Pavlou & Sway, 2011). This means that there is a similarity in both cases of the companies, which makes it possible to compare how the companies used resilience capabilities to influence their flexibility. Therefore, new insights on how resilience capabilities influence organisational flexibility can be made (Madini & Parast, 2021; Grogaard et al., 2019).

However, a difference between both SME's need to be noted within this thesis. While both SME's are active within different subsectors of the secondment sector. NRG-Office focuses on supply chain secondment within the food sector. While iTrainee plays an active role as an IT specialist secondment burau within the IT-sector. However, both SME's experienced challenges within the overarching secondment sector. Which makes the data valid within this setting (Myers, 2020; Vennix, 2019).

3.3 Data collection method

This study builds on two data sources present within both SME's. These sources are qualitative semi structured interviews and a combination of internal and external documents focused on both SME's. The reason for the use of multiple data sources, is that enables to cross reference claims made from interviews. Which will make the data collected from the interviews more credible (Myers, 2020).

3.3.1 Interviews

The main data source of this study are the qualitative semi structured interviews done within both SME's. Within these interviews open questions where used to allow for respondents to describe and explain the complex decisions or problems they faced during the COVID-19 crisis. In order to gain better insight on how the resilience capabilities influenced organisational flexibility within both SME's. Additionally, due to the freedom open questions give, insights could be made on new phenomenon within both topics (Myers, 2020; Vennix, 2019). furthermore, both SME's where given similar interview questions from an interview question list to increase the reliability of the data collected (see Appendix A). The reason for the use of semi structured interviews was to gain insight on which predetermined resilience capabilities where used by both SME's. While allowing for other possible resilience factors to be explored (Myers, 2020).

In total 11 interviews were conducted for this research. According to the literature, to give a reliable and valid comparison for the case a minimum amount of five interviews per organisation is needed (Myers, 2020). Therefore, the original goal was to conduct 5 interviews in each SME. However, due to a heightened interested and willingness in one SME an additional interview has been conducted within iTrainee. The respondents of both companies come from different layers within the organisation. This makes it possible to analyse the impact of resilience capabilities on all levels of the organisation. Which gives a more complete understanding of the experiences of both SME's (Vennix, 2019). In the table below is an overview of the different functions of all interviewees per SME. To increase the validity of the measurements, the criteria for all interview respondents was that they were active within the SME's before or during the COVID-19 crisis. This way the respondents where knowledgeable about the effects the COVID-19 pandemic had on the SME's. Another element within the interview will be that the interviews will be done anonymously. The motivation for this is that it gives more reliable data, as the interviewee does not feel inclined to withhold information. Furthermore, anonymous interviews are more ethical because the interviewee cannot be negatively impacted by the information he or she gives (Myers, 2020). After all interviews were conducted, they then where transcribed and coded into themes.

iTrainee	NRG-Office
Director operations	Operations manager
Maninging director	Business unit manager
Operational manager	Business unit manager
Operational manager	Recruiter
Campus lead	Recruiter
Trainer soft skills	

Table 1: Overview of functions interviewees per SME.

3.3.2   Internal and external documents

The internal and external documents used in this study are applied as secondary sources to gain further insights on how both SME's dealt with the challenges of the COVID-19 crisis. This way a more complete picture could be made of both the internal and external environmental context within both companies. Which would enable a better understanding for choices made during the COVID-19 pandemic (Myers, 2020; Vennix, 2019). Additional, the internal and external documents increased the reliability of the claims made within the interview. The internal and external documents where used as secondary data sources to give more clarity to the context of both SME's and expand upon claims made within the interviews. Therefore the documents was not coded. However, the internal and external documentation had the following criteria in order to be relevant for this research (Myers, 2020):

- The documents are either internally written documents or external accounts from credible sources;
- Internal documents need to be written by employees or departments that where active during the COVID-19 crisis and the changes that followed;
- The documents focus on the effect of the COVID-19 crisis on the organisation, the reactions of the organisation on the impact COVID-19 crisis or organisational restructuring during and after the crisis;
- The documents are free from distortion or error of their contents

When a document has all of the given criteria it is eligible to be analysed. The reason for this is that it gives authentic, credible, meaningful and representative information about the use of resilience capabilities and the effects on organisational flexibility (Myers, 2020). In the table below an overview is made of the used internal documents (see table 2).

Used documents
Presentation slides used during COVID-19 pandemic during quarterly call in meeting
Internal correspondence about the COVID-19 from higher management addressed to all employees
Organisation matrix before and after COVID-19 Pandemic

Table 2: documentation used for research (see appendix C).

3.4 Operationalisation

Within chapter 2 of this study the key concepts of resilience capabilities and organisational flexibility where formulated. Before any interviews or documentation studies where preformed these key concepts where operationalized in accordance with the available literature (see table 3). These operationalized key concepts where then used as a way to group the data into themes at the start of the coding process and to formulate open interview questions (see appendix A). In order to increase the reliability of measurement in both the coding process and conducted interviews (Myers, 2020; Vennix, 2019). However, due to a lack of clarity on the exact nature of each resilience capabilities within the literature (Raetze et al., 2021; Duchek, 2019). Therefore, hybrid coding was used to find additional codes not covered by the operationalisation of the key concepts. This way the definition of resilience capabilities and flexibility could be further expanded on within additional empirical data (Vennix, 2019).

In addition to the key concepts of resilience capabilities and organisational flexibility the resilience process was added to the operationalisation. Due to the retrospective nature of this research, it was important to keep track of what actions and decisions both SME's made at certain stages of the crisis. Therefore, the stages within the resilience process where added to increase the reliability of this interview (Myers, 2020; Duchek, 2019).

Key concept	Operationalisation of the key concept	Source(s)
Resilience process	Anticipation stage • Event has occurred before the unexpected crisis. Coping stage • Event has occurred in the initial phase of the unexpected crisis. Adaptation stage • Event has occurred after initial phase of the unexpected crisis. •	(Duchek, 2019)
Resilience capability	Leadership capability • Higher management build confidence and social support for subordinate managers and employees to motivate change; • Organisations use of risk management skills (analysing the environmental changes, assessing risk or taking preventive measures); • Higer management facilitated and supported employees in order to create a positive attitude towards implemented changes.	(Madini & Parast, 2021; Medoza & Pelaez, 2021; Grogaard et al., 2019)

	Business processes capability • Organization used statistical and information technology tools to gather information about changes; • Organisation determined the risk of disruptions and their impact when making choices on reacting or adapting to changes that occurred during the crisis. Resource capability: • Presence of redundant resources within the organisation; • Presence of resources constraints within the organisation; • Use of the relational, financial and technological resources. Governance capabilities: • Governance and decision making principles where used during the crisis; • Formal organisational mechanisms (like meetings, online networks or organisational events) where used during the crisis; Collaboration capability: • The amount and types of communication between organisation departments about the unexpected change; • The amount and types of knowledge sharing, information sharing and joint planning was done within the organisation; Infrastructure capability: • The amount of physical or intangible systems and assets whose failure or damage would have a critical impact on the operations are present in the organisation. • The amount and use of security and safety systems that are present in the organisation.	
Organisational flexibility	The ability to integrate resources and capabilities • The rate at which new resources and capabilities are implemented within the company; • The rate at which the use of new resource and capabilities are embedded within the company; • The ability to recognize resistance to the implementation and use of new resources and capabilities (embedded norms)and the ability to change these. The ability to coordinate resources and capabilites • The ease in which resources and capabilities can be deployed within the organisation; • Amount of resistance (from business processes, employees or infrastructure) when deploying and redeploying resources and capabilities • The effect the deployed resources and capabilities have on performance and creation of value (effectiveness of coordinating resources)	(Medoza & Pelaez, 2021; Grogaard et al., 2019; Pavlou & Sway, 2011)

Table 3: Operationalisation of key concepts

3.5 Data analysis

Whitin this research, systematic analysis via the coding of expressions was applied (Myers, 2020). The reason for the use of expression coding is because the empirical data that has been collected within this research is based on the respondents experiences in crisis situations. Because this data cannot be easily translated into numerical measurements, expressions will be translated via the operationalized key concepts (see chapter 3.4). This to get clear insight on how both secondment companies dealt with the impact of the COVID-19 crisis and to increase reliability (Myers, 2020; Vennix, 2019). In line with the intended qualitative case study method, an analysis of the research data has been done via an hybrid coding process (Myers, 2020; Vennix, 2019). When additional research data was found that did not fit directly within the thematic codes, new themes where added from this data. These new themes then could expand upon the meaning of the key concepts. Which in turn, expanded upon the existing knowledge on resilience capabilities and organisational flexibility. The following structure of the analysis was as followed (Myers, 2020; Vennix, 2019);

1. The first analysis of the research data was done by ordering the complete data into codes of core and recurrent expressions. These codes focused on either the use of resilience capabilities by both SME's to react to the COVID-19 crisis or the influence resilience capabilities had on flexibility;
2. Following this process these expression codes where then abstracted into categorical codes. In order to create these categorical codes, operationalized key concepts where used (see table 3). This way codes could be compared between the existing literature and new empirical findings, in order to make valid empirical observations. When new empirical findings were made, new categorical codes where formulated and logged into a codebook;
3. Finally, the categorical codes where translated into a single descriptive code based on the core themes (see table 3). Within these descriptive codes, any new empirical findings where added into previously existing themes.

During the analysis process, attention was kept on new empirical findings about the relation between specific types of resilience capabilities and organisational flexibility. If new empirical findings were made, the existing literature was used to give meaning to these new findings (Raetze et al., 2021; Duchek, 2019). This led to the formulation of new findings on both singular resilience capabilities and the way in which resilience capabilities influence organisational flexibility.

4. Findings

Within this chapter, the findings of this qualitative case study are presented. The first part of this chapter elaborates the results which expand upon the insights on resilience capabilities. Hereby, conclusion are made on both proposition A and B. Additionally, new themes within certain resilience capabilities are explained in the first part of this chapter. Which gives more nuance to the overall concept of resilience capabilities. With the increase in nuance and the expansion of insights on resilience capabilities the secondary question; *"What are organisational resilience capabilities?"* is answered. The second part of this chapter focuses on the findings that show the influence resilience capabilities has on organisational flexibility. Therefore conclusions on proposition C, D and E are made. With these findings, answers are given to the secondary questions of; *"what is organisational flexibility"* And *"How do resilience capabilities influence organisational flexibility?"* Within the final part of this chapter, all the findings will be combined into a new theoretical framework formulated. Which will summarize the results of this research.

4.1 Findings on resilience capabilities

In order to explore proposition A and B, a table was constructed which shows the total presence of each resilience capability within both companies during the COVID-19 crisis (see appendix B). With this table, it can be concluded that all six resilience capabilities where present and used during the COVID-19 crisis. Additionally, during this research, new themes where found within two different types of resilience capabilities (see appendix B and table 4). These two resilience capabilities are the governance- and collaboration resilience capability. The expanded meaning of these resilience capabilities shall be further explained within this chapter.

4.1.1   Expanding the governance resilience capability

Previously, the governance resilience capability described the use of governance and decision making principles during crisis situations (see chapter 2.2.1). However, with the insights gained from this empirical study, an additional theme has been found. This is the theme of perceived cultural norms, which both companies needed to align to in order to make decisions during the COVID-19 crisis. For example, at the start of the COVID-19 crisis, respondents from both SME's perceived their company as a family culture with a close involvement between employees (see appendix C). As one respondent claims; *"If you look at iTrainee it is really a family culture… there is not a clear hierarchy, I mean there is a hierarchy, but you can talk to everybody openly." (iTrainee, Speaker C, excerpt 1C)*. However, due to this perception of a family culture, respondents within both companies mentioned a greater difficulty in using governance capabilities during the COVID-19 crisis. This was due to an increase in online communication during the pandemic. Which can be seen within the following statement; *"It used to be (before COVID-19) that everybody met on the Monday morning meeting. And as you sit with each*

other…. it goes like how was your weekend? What are your plans?... On teams it's just different, when making decisions." (Trainee, speaker B, excerpt 44B). This example shows that governance capabilities, in times of crisis, still need to align with an organisations perceived family culture. However, not only a perceived family culture but also other perceived cultural norms have the same effect on governance capabilities. For example, both SME's perceived themselves as proactive companies. Which lead to a quicker use of governance capabilities during the COVID-19 crisis As can be seen in the following statement; *"I think form the trainers themselves (the decision to give the password to the trainees), they were mostly busy with those things… The management where not busy with that choice…. It where the trainees that said to each other; We give them the passwords" (iTrainee, speaker D, excerpt 24D).* Due to these findings within the observed data, an additional theme within the governance resilience capability has been added to table 4. This theme is named; "The use of perceived cultural norms within an organisation to make decisions during crisis situations". With the addition of this theme the concept of governance resilience capability has been further expanded upon. Bringing more nuance to the concept of resilience capabilities (Raetze et al., 2021).

4.1.2   Expanding the collaboration resilience capability

Within the literature the collaboration resilience capability focuses on the collaboration between different internal organisational departments (see chapter 2.2.1). During this research, new insights from both SME's brought to light an additional element of collaboration. That element was the communication with external parties in order to gain information on the impacts of the COVID-19 crisis. For example, one respondent proclaimed; *"We are a member of the Verening van Detacheerders Nederland, every month or yearly quarter we get information which is gathered from all its members... even during the corona crisis, we got information… which helped us have a good overview of what the situation was everywhere."(NRG-office, Speaker K, Excerpt 8K).* Additionally, Within iTrainee, empirical evidence was found that the company actively negotiated and made deals with external parties to reduce the impact of the COVID-19 crisis (see appendix C). Which can be seen by the following statement; *"Eventually, we agreed with our clients that they could have a quicker turnover. So we would still have some revenue, but not everything. (.....) So we asked per customer, what can we bring to the table so you keep that trainee. Because it is important that they remain there. (iTrainee, speaker F, Excerpt 17F)".* Therefore, showing that within both companies, that communication and negotiation with external parties are seen as a way to collaborate in order to overcome a crisis. Due to these findings within the observed data, an additional theme within the collaboration resilience capability has been added to table 4. This theme is named; "the use of negotiation and communication with external parties to reduce the impact of changes during a crisis." With the addition of this theme the concept of the collaboration resilience capability has been further expanded upon. Which increases the nuance on the overall concept of resilience capabilities (Raetze et al., 2021).

To conclude, The findings made on the use of resilience capabilities (see appendix B) shows that all six resilience capabilities where used during the COVID-19 crisis. Which, therefore, strengthens the claim of proposition A and B. Additionally, due to the findings within the interviews, additional insights have been made on different types resilience capabilities. Hereby, further expanding upon the overall concept of organisational resilience. With the results found in appendix B and the expansion of the meaning of these two resilience capabilities, table 4 has been constructed. This table shows out of which elements each resilience capability is formed. Which answers the secondary question; *What are organisational resilience capabilities?*

Elements within the organisational capability	Organisational resilience capability
Higher management build confidence and social support for subordinate managers and employees to motivate change;	Leadership capability
Organisations use of risk management skills (analysing the environmental changes, assessing risk or taking preventive measures);	
Higer management facilitated and supported employees in order to create a positive attitude towards implemented changes.	
Organization used statistical and information technology tools to gather information about changes;	Business process capability
Organisation determined the risk of disruptions and their impact when making choices on reacting or adapting to changes that occurred during the crisis.	
Presence of redundant resources within the organisation;	Resource capability
Presence of resources constraints within the organisation;	
Use of the relational, financial and technological resources.	
Governance and decision making principles where used during the crisis;	Governance capability
Formal organisational mechanisms (like meetings, online networks or organisational events) where used during the crisis;	
The use of perceived cultural norms within an organisation to make decisions during crisis situations. (NEW)	
The amount and types of communication between organisation departments about the unexpected change;	Collaboration capability
The amount and types of knowledge sharing, information sharing and joint planning was done within the organisation;	
the use of negotiation and communication with external parties to reduce the impact of changes during a crisis. (NEW)	
The amount of physical or intangible systems and assets whose failure or damage would have a critical impact on the operations are present in the organisation;	Infrastructure capability
The amount and use of security and safety systems that are present in the organisation.	

Table 4: elements with each type of resilience capability

4.2 Findings on resilience capabilities and organisational flexibility

From the observations within this case study, important findings were made on the influence of resilience capabilities on organisational flexibility. Within this chapter, conclusions on propositions C, D and E are made in order to expand the insights on organisational resilience and organisational flexibility. The first part of this chapter will expand on the influence resilience capabilities have on the ability to integrate resources and capabilities within an organisation. The second part focuses on how resilience capabilities influence an organisations ability to coordinate resources and capabilities. At the end of this chapter, an elaboration will be made on how organisational flexibility consists out of both an ability to coordinate and integrate resources and capabilities.

4.2.1   The influence of resilience capabilities on the ability to integrate

Within proposition D, a combined influence of the resilience capabilities of leadership, governance and collaboration on the organisations ability to integrate new resources and capabilities was speculated. Due to the observations within the case study, findings have been made about the combined influence of these resilience capabilities on the ability to integrate. Firstly, respondents from both iTrainee and NRG-office mentioned overlapping influences on collaboration and governance. For example, Within iTrainee, respondents mentioned that their formal organisational mechanisms combined with their collaborative effort of sharing knowledge allowed for a quick integration of the new digital system (see appendix C). Which is exemplified by the following quote; *"Our co-workers have a strong connection to each other, which allows us to learn a lot during the Monday morning meetings… or private conversations… this made the step to digitalize during the corona crisis a lot easier."(iTrainee, Speaker E, Excerpt 24E).* This example shows a combined influence of collaboration- and governance resilience capabilities on integration. Secondly, within both SME's, the combination of resilience capabilities that led to a shared influence on the ability to integrate was that of collaboration and leadership. This can exemplified within NRG-Office, where information is shared between leadership and employees in order to asses risk and predict which new resources and capabilities to integrate (see appendix C). As show in the following quote; "*From the bottom (of the organisation). Just looking at the top like: Hé how would you do this? (…) and if a crisis occurs, then we all just sit down and we explain our vision and experience to solve these situations. Which then allows us to talk about it."(NRG-Office, Speaker J, excerpt 12J).* Due to these examples a combination of the resilience capabilities of collaboration and leadership could be seen to have a valid influence on the ability to integrate. Lastly, in contrast to proposition D, no combined influence between the resilience capabilities leadership and governance on integration was found. Therefore, based on these findings, this combined influence needs to be altered in order to fit the results.

4.2.2 The influence of resilience capabilities on the ability to coordinate

Within proposition E, a combined influence of the resilience capabilities of business processes, resources and infrastructure on the organisations ability to coordinate resources and capabilities was speculated. Via observations from the case study, findings have been made about this combined influence. Firstly, a combined effect between resource capability and an business processes was used within both organisations influence the coordination resources and capabilities. For example, within iTrainee, financial resources where used to enhance the predictability of information systems before and during the COVID-19 crisis. Which helped them coordinate resources more efficiently. As explained in the following quote; *"via investments… in certain information systems to make the organisation more efficient… Which helped us a lot during the corona crisis" (iTrainee, Speaker C, excerpt 37C).* Secondly, no respondents gave examples of the combined influence of infrastructure- and business process resilience capability on the ability to coordinate resources and capabilities. This was similarly the case with the combined influence of resource- and infrastructure resilience capability had influence on coordination. Which contradicted the proposed combined influences of proposition E. Due to a lack of evidence in the observations, alterations need to be made to the theoretical framework to only show a combined influence of resources and business processes on the ability to coordinate.

4.2.3 The aspects of organisational flexibility

Proposition C states that; Organisational flexibility consists out of both the ability to coordinate and the ability to integrate resources and/or capabilities within the company. Within both SME's questions were asked about the flexibility of the company during the COVID-19 Crisis (See appendix A). This was done to infer, whether both aspects indeed are part of organisational flexibility. Within NRG-Office and iTrainee, both coordination and integration where seen as a part of organisational flexibility. As seen in the following statements;

"We were very flexible, We went from along teaching to digital teaching… which had an impact on everything… the teaching materials we used, rewriting training exercises… the scheduling of teachers lessons uuhhh… the purchasing of new materials, online meetings uuhhh…. We had created a new way of working…" (iTrainee, Speaker B, excerpt 55B).

"That would be the collaboration in NRG, we make agreements on plans and then try to do them together. If everybody does there job, does that create flexibility? Yes… Actually, I think the new systems (that where implemented during COVID-19 crisis) also allow us to work more flexible… So there is something to say about both."(NRG-Office, Speaker G, excerpt 25G).

From these results, it could be concluded that organisational flexibility consists out of both the ability to coordinate and integrate resources and capabilities within a company. Which answers the

secondary question of; "*what is organisational flexibility?*". Additionally, this means that resilience capabilities influence organisational flexibility by affecting both of its aspects.

4.3 The theoretical framework

Based on the new findings of this case study and the literature, the previously conceptual framework (see chapter 2.4) has been altered to better fit with the results of this study (see figure 2). From the findings of the case study, the conclusion was made that resilience capabilities influence organisational flexibility (see chapter 4.1). Furthermore, it is shown that all types of resilience capabilities influence certain aspects of organisational flexibility (see chapter 4.2). These aspects of organisational flexibility are the ability to coordinate- and the ability to integrate resources and capabilities within an organisation (see chapter 4.2.3). Within the case study, the resilience capability of collaboration was found to have a combined influence with both the governance- and leadership capability on the ability of organisations to integrate new resources and capabilities (see chapter 4.2.1). However, in contrast to the literature, no observations where made on the combined influence of governance- and leadership resilience capabilities on the ability of an organisation to integrate (see chapter 4.2.1). Therefore, it can be presumed that no combined influence is present within these resilience capabilities. Which therefore alters the theoretical framework (see figure 2). Within chapter 4.2.2, evidence was found on the combined influence of the business process- and resource resilience capability on the organisations ability to coordinate resources and capabilities. However, in contrast to the literature, no additional combined influences of resilience capabilities on the ability to coordinate where found (see chapter 4.2.2). Which, means that the resilience capability of infrastructure has a separate influence on the organisations a ability to coordinate new resources and capabilities. This has also been observed within both organisation, as stated by a respondent; "*At the time we had the AVAS system… uhh… That was used to tell and show things, Yes, to really have and keep overview of… everything (iTrainee, Speaker C, excerpt 18C).* With the aforementioned findings for the case study the following theoretical framework is constructed (see figure 2). This theoretical framework answers the main question of; "*How do resilience capabilities influence organisational flexibility within organisations during an unforeseen crisis?*".
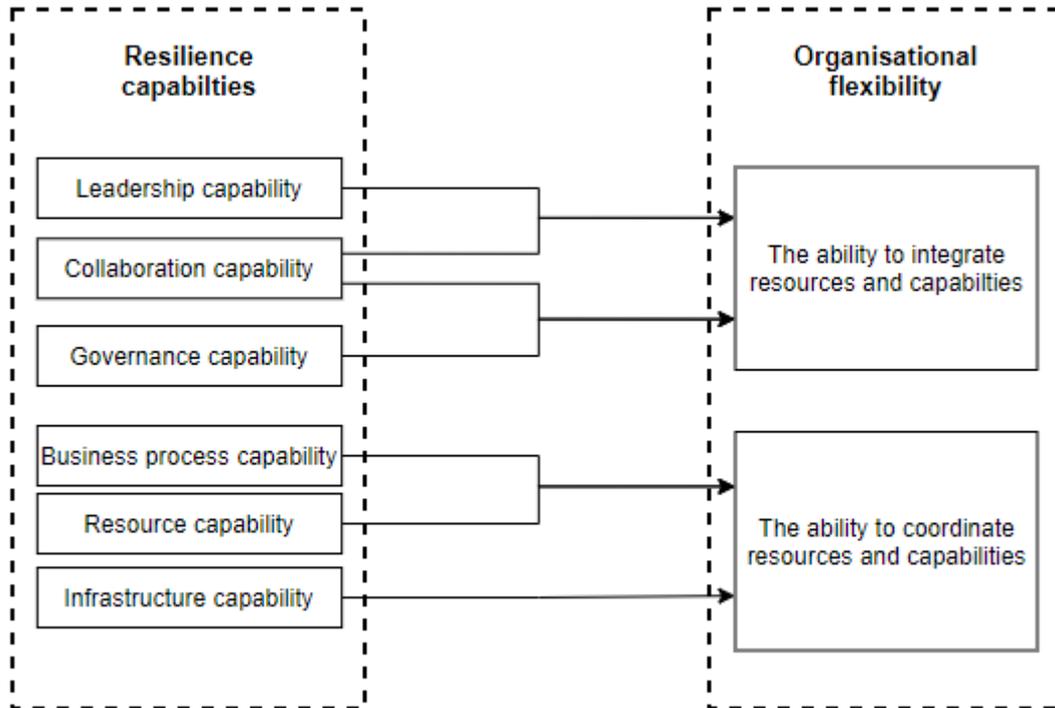
Figure 2: Theoretical framework on the influence of resilience capabilities on organisational flexibility.

5. Conclusions and discussion

Within this chapter the findings of the previous chapter will be translated into a conclusion that answers the main question of this thesis. After the conclusion is draw a discussion is made on the limitations. Followed by the implications for future research and theoretical contributions or implications.

5.1 Conclusion

Within this thesis research, new and relevant empirical insights on organisational resilience have found that resilience capabilities do influence organisational flexibility during unexpected crisis's. According to both the literature and findings within this case study, when a crisis occurs, the use of certain types of resilience capabilities influence both the ability of an organisation to integrate and coordinate resources and capabilities. It is due to this influence that resilience capabilities on these aspects of organisational flexibility. That organisational resilience is shown to have an influence organisational flexibility. In addition to answering the main question of this research, new insights have been made on how certain types of resilience capabilities influence certain aspects of organisational flexibility. Firstly, within both organisations all the types of resilience capabilities have been observed influence aspects of organisational resilience. Within this influence on the aspects of organisational flexibility, the ability to coordinate is influenced by the resilience capabilities of resources, infrastructure and business processes. While the ability to integrate is influenced by the resilience capabilities of leadership, collaboration and governance. Secondly, Within both aspects of organisational flexibility the combined influence of different types of resilience capabilities have been expanded upon. It has been observed, within both SME's, that combined influence of the collaboration resilience capability on both the leadership- and governance resilience capability is present. This combined influence is related the ability of an organisation to integrate new resources and capabilities. Additionally, within both SME's a combined influence of the business process capability and resource capability has been observed. Which influence the organisations ability to coordinate resources. With the results for this research and the literature an theoretical framework has been constructed. Which aims to expand the existing knowledge of both organisational resilience and organisational flexibility.

5.2 Discussion:

This study aims to answer how resilience capabilities influence organisational flexibility during an unexpected crisis's. In order to further define the organisational level relation of resilience capabilities as antecedents to organisational flexibility. With the goal to develop both the organisational resilience and the organisational flexibility literature. To achieve this goal, an explorative case study has been done between two SME's that where active within the secondment sector during the COVID-19 pandemic. Both of these SME's, therefore, had to deal with the implications and changes of the COVID-19 pandemic in the past. Which could then be compared and analysed to expand the existing knowledge on resilience capabilities and organisational flexibility. During this case study, 11 interviews where done with participants from all levels of the organisation to analyse their responses on questions relating to resilience capabilities and organisational flexibility. These answers where then transcribed and coded in order to reach the intended research goal. Additionally, internal and external documents where used as secondary sources to gain further insights on how both SME's dealt with the challenges of the COVID-19 crisis. Furthermore, these documents where used to increase the reliability of claims made during the interviews. From the combined method of interviews and a documentation search data was gathered and analysed to formulate results on the case based study. The results of this study indicate that organisational resilience capabilities influence organisational flexibility. In accordance with literature, resilience capabilities influence both the integration and coordination of resources and capabilities within an organisations. Which then in turn shows that organisational resilience influences organisational flexibility (Madini & Parast, 2021; Pavlou & Sway, 2011). However, the results of this research differentiate with the literature on the exact way in which the resilience capabilities influence organisational flexibility. Within the literature, arguments on combined influences of multiple types resilience capabilities are made which were not found during this study. For example, within the literature, there is an indication made about combined influences of the business process, infrastructure and resource resilience capabilities on the ability coordination resources and capabilities (Vakilzadeh & Haase, 2020; Pavlou & Sway, 2011). However, between these three resilience capabilities, only the combined influence of the business process and resource resilience capabilities on the ability to coordinate was found during this study. These findings within this research, indicates that the relationship between the different resilience capabilities and aspects of organisational flexibility need to be further developed. Therefore, within this study, an attempt was made to build a theoretical framework on the influence each type of resilience capability has on the aspects organisational flexibility. Hereby, adding more nuance to assumptions made in the articles of Madini & Parast, (2021) and Grogaard et al. (2019). In order to further expand upon the literature of organisational resilience and organisational flexibility.

5.2.1 Theoretical implications

This study contributes to theory in several different ways. Firstly, new findings on the resilience capabilities of collaboration and governance where made. These findings more clearly define how these two types resilience capabilities are antecedents of organisational flexibility (Raetze et al., 2021; Madini & Parast, 2021). Additionally, the new findings on the governance and collaboration resilience capability further expand upon the meaning of these resilience capabilities in crisis situation. Which, therefore, expands upon the existing knowledge of resilience capabilities Madini & Parast, (2021) and Vakilzadeh & Haase (2020).

The second contribution of this research is that it shows how organisational resilience can be antecedents to organisational flexibility. Which therefore builds upon existing knowledge of organisational level resilience outcomes as it highlights that resilience capabilities influence the aspects of organisational flexibility (Raetze et al., 2021; Madini & Parast, 2021). Additionally by showing how resilience capabilities influence organisational flexibility, the antecedents of organisational flexibility are expanded upon. Thus further developing the theory on organisational flexibility (Medoza & Pelaez, 2021; Sarta et al., 2018).

The final contribution of this research is that it expands upon how each type of resilience capability influence different aspects of organisational flexibility. Which is done by combining the existing literature with new empirical data to give insight on the combined and separate influences that each resilience capability has on aspects of organisational flexibility. This is then further translated into an theoretical framework, which can be used in future studies (Madini & Parast, 2021; Pavlou & Sway, 2011).

5.2.2 Practical implications

The findings of this study give insight to organisations that the use of resilience capabilities in crisis situations influence organisational flexibility. Which is done by influencing an organisations ability to integrate and coordinate its resources and capabilities. Therefore, in order to be flexible during a crisis, it is important that an organisation is mindful on which resilience capabilities it can use (Pavlou & Sway, 2011; Grogaard et al.,2019). Additionally, this study finds that in crisis situations certain type of resilience capabilities influence certain aspects of organisational flexibility. Which makes it possible for organisations to focus on integration or coordination abilities during a crisis (Madini & Parast, 2021; Pavlou & Sway, 2011). Finally, this study empirical practices done by two SME's which organisations can use in crisis situations in order to survive a crisis and remain competitive (Raetze et al., 2021; Chakrabarti, 2015).

5.2.3 Limitations of research and future research recommendations

Despite its strength the research in this study has its limits. To start, due to the nature of qualitative research, a small sample size of two companies within one industry was used to make generalizable conclusions (Myers, 2020; Vennix, 2019). In order to further develop how organisational resilience influences organisational flexibility a study with a bigger sample size consisting of multiple industries must be conducted. This in order to further justify the conclusions made within the study (Raetze et al., 2021). Additionally, a quantitative study on the application of different types resilience capabilities would further develop the literature on organisational resilience (Myers, 2020; Vennix, 2019). This will further justify the propositions made on the different resilience capabilities types and the influence they have on organisational flexibility (Medoza & Pelaez, 2021, Grogaard et al., 2019). Which will ensure the legitimacy of the claims made within this thesis on both concepts. Secondly, for this research, the method of an exploratory case study has used to gain further insights on influence resilience capabilities have on organisational flexibility (see chapter 3.2). However, other types of qualitative research methods could also have been used to gain deeper insight into this relation. For example, both action research and ethnographic research allow the researcher to gain a more in depth and relevant understanding of the how both SME's faced the COVID-19 crisis. Which would create richer observations on the use of resilience capabilities to influence organisational flexibility (Myers, 2020; Vennix, 2019). Yet, these methods didn't fit within this research setting. While action research and an ethnographic research gives relevant data, the researcher needs to be present during the unexpected crisis to observe and collect data from it. Because the COVID-19 crisis had already occurred and was unpredictable crisis. It would not have been possible to conduct these types or research . This, therefore, made a retrospective case based study with interviews a more ideal method for this study (Myers, 2020). Another option was to use the qualitative method of grounded theory, which would be more systematic and detailed in the analysis of data and gives ample evidence to back up a researchers claims. Due to a constant interplay between data collection and analysis (Myers, 2020; Vennix, 2019). However, like the other qualitative research methods, this method of research would be very time consuming. Additionally, grounded theory strength lies in developing context-based, process oriented descriptions of repeated organisational phenomena (Myers, 2020). While the context of an unexpected crisis is important for this research, there are multiple ways in which a unexpected crisis could impact an organisation (Reatze et al., 2021). Which makes it difficult for grounded theory to analyse any form of repeated phenomena. Meanwhile, an explorative case based study is better equipped to deal with a singular occurrences of a phenomena (Myers, 2020; Vennix, 2019). Alternatively, a single case based study could have been done to gain more insight into the relation between resilience capabilities and organisational flexibility. However, unlike a multiple case study, it is not possible to contrast the use of resilience capabilities within two different companies within a singular case study. Which would decrease the richness of the data and make it more difficult to develop a theoretical framework (Reatze et al., 2021; Vennix, 2019).

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7. Appendix

7.1 Appendix A

Interview vragen NRG-Office
Dit interview richt zich op de relatie tussen risk management vaardigheden en flexibiliteit via de ervaring van detacheringsbedrijven tijdens de corona crisis. Tijdens het interview zullen er vragen zijn over de detacheringbedrijf risk management vaardigheden voor de corona crisis, tijdens de corona crisis en de relatie tussen risk management en flexibiliteit. Het interview zal anoniem worden afgenomen, worden opgenomen en zal naderhand getranscribeerd worden voor een data analyse.
Start vragen NRG-Office

Wat is jouw functie binnen NRG?
- *Hoelang ben je al actief bij NRG?*

Hoe zou je NRG als bedrijf omschrijven?
- *Wat is de missie en visie van NRG?*
- *Wat is de essentiële taak die NRG uitvoert in de detachering/supply chain markt?*

Vragen omgang met een crisis/risico's voor de corona crisis

Deze vragen zullen zich focussen op de omgang van NRG met crisis situaties en risico's voor de corona crisis. De corona crisis vragen zullen hierna zijn.

Hoe ging NRG om met risico's?
- *Hoe werd er op mogelijke risico's voorbereid?*
  - *Hoe werd er informatie over mogelijke risico's verzameld?*
  - *Wat voor een soorten analyse systemen werden er gebruikt om deze informatie te verzamelen?*
  - *Hoe werd deze informatie over risico's intern verspreid door NRG?*
  - *In hoeverre werd risk management gebruikt door hoger management in een crisis situatie?*
- *werden plannen gemaakt als voorbereiding op risico's?*
  - *Hoe werden deze plannen gemaakt?*
  - *Wie was er verantwoordelijk voor het opstellen van deze plannen binnen NRG?*
  - *Wat werd er met deze plannen gedaan?*
  - *Hoe werden deze plannen intern verspreid door NRG?*

Hoe beschikbaar waren (financiële, fysieke, informationele en menselijke) middelen bij NRG?
- *Hoe zijn de financiële, fysieke, informationele en menselijke middelen verspreid over NRG?*
  - *Hoeveel overzicht heb je binnen NRG op de verspreiding van zijn middelen?*
  - *Waardoor was deze overzicht zo goed/slecht?*
  - *Wie was er verantwoordelijk voor de verdeling van de middelen bij NRG?*
- *Hoe werden deze middelen beschikbaar gemaakt?*
  - *Wat waren de mogelijkheden om middelen aan te vragen?*
  - *Hoe snel kwamen de middelen aan na een aanvraag?*
- *Hoe divers waren de middelen die toen der tijd beschikbaar waren?*

Hoe zag de interne structuur eruit van NRG eruit?
- *Hoe bestending was de interne structuur tegen crisis situaties volgens jou (en waarom)?*
  - *Hoe goed waren de zwaktes van de organisatie structuur in kaart gebracht door NRG?*
  - *Wat waren de plannen om deze zwaktes op te vangen tijdens een crisis situatie?*
- *Hoe afhankelijk waren de verschillende afdelingen van NRG van elkaar?*

- o *Hoe verliep de samenwerking tussen de verschillende afdelingen binnen NRG?*
- *Hoe verliep communicatie tussen de verschillende afdelingen van NRG?*
  - o *Wat voor interne communicatie middelen/systemen worden er gebruikt binnen NRG?*
  - o *Wanneer was er wel/geen communicatie tussen de verschillende afdelingen van NRG?*
  - o *Wat was de mate aan kennisdeling tussen de verschillende afdelingen van NRG?*

Wat was de rol die het (hoger) management in nam tijdens een crisis situatie?
- *Wat was de houding van (hoger) management op risico's en crisis situaties?*
- *Hoe communiceert (hoger) management met de rest van de organisatie?*
- *Hoe probeerde het (hoger) management zijn medewerkers te ondersteunen in een crisis situatie?*
- *Wat voor een initiatieven nam het (hoger) management om te reageren op een crisis situatie?*

Hoe zag de cultuur van NRG eruit voor de corona crisis?
- *Hoe formeel was de cultuur van NRG?*
- *Hoe beïnvloede de cultuur van NRG de houding die de organisatie had bij het nemen van risico's?*
  - o *Wat was de houding van personeel op het nemen van risico's?*
- *Hoe proactief werd er bij NRG omgaan met een crisis?*
  - o *Waarom was NRG zo proactief/ niet poractief?*
  - o *Wat leerde NRG van een crisis situatie?*

Vragen gebruik resilience capabilities tijdens corona crisis
Deze vragen focussen zich op de risk management vaardigheden die daadwerkelijk toegepast zijn door NRG.

Hoe voorbereid was NRG op de corona crisis?
- *Wat was er goed aan de voorbereidingen die NRG had gemaakt voor de corona crisis?*
- *Wat had NRG beter kunnen doen om zich voor te bereiden op de corona crisis?*
  - o *Hoe werden de informatie/data systemen van NRG gebruikt tijdens de voorbereiding op de corona crisis?*
  - o *Wat voor plannen waren er gemaakt om te reageren op de corona crisis?*
  - o *Hoe verliep communicatie over de plannen tijdens de corona crisis?*
  - o *Hoe verliep de uitvoer van deze plannen tijdens de corona crisis?*

Hoe verliep de samenwerking binnen NRG tijdens de corona crisis?
- *Wat ging er goed aan de samenwerking van NRG tijdens de corona crisis?*
- *Wat kon NRG doen om de samenwerking te verbeteren tijdens de corona crisis?*
  - o *Hoe verliep de interne communicatie tijdens de corona crisis?*
  - o *Wat voor een effect had de afhankelijkheid van de afdelingen van NRG op de samenwerking?*
  - o *Hoe verliep het delen van kennis tussen de afdelingen tijdens de corona crisis?*

Wat gebeurde er met de interne structuur van NRG tijdens de corona crisis?
- *Hoe goed verliepen de bedrijfsprocessen van NRG tijdens de corona crisis?*
  - o *Welke bedrijfsprocessen vielen weg?*
- *Hoe goed werkte bedrijfssystemen (communicatie middelen, interne platforms ect) tijdens de corona crisis?*
- *Wat werd er gedaan om missende bedrijfsprocessen of bedrijfssystemen op te vangen?*

Hoe beschikbaar waren de middelen van NRG tijdens de corona crisis?
- *Wat gebeurde er met de verdeling van middelen in de organisatie?*
- *Wat gebeurde er met de diversiteit aan beschikbare middelen?*
- *Wat voor een effect had de corona crisis op de snelheid dat middelen aankwamen na een aanvraag?*

Hoe ondersteunde het (hoger) management de medewerkers tijdens de corona crisis?
- *Hoe goed begreep (hoger) management de effecten van de corona crisis?*

- *Hoe verliepen de initiatieven die het hoger management uitvoerde tijdens de corona crisis?*
- *Hoe was de communicatie van het hoger management tijdens de corona crisis?*

Hoe hielp de cultuur van NRG tijdens de corona crisis?
- *Hoe hoog was de respons van de medewerkers op de corona crisis?*
- *Wat veranderede er tijdens de corona crisis aan de cultuur van NRG?*

Vragen resilience capabilities en flexibiliteit

Deze vragen richten zich op de relatie tussen risk management vaardigheden en flexibiliteit binnen NRG.

Hoe flexibel was NRG tijdens de corona crisis?
- *Wat waren de voornaamste redenen voor de flexibiliteit die NRG had tijdens de corona crisis?*
  - *Wat voor invloed had hoger management op de flexibiliteit van NRG tijdens de corona crisis?*
  - *Wat voor invloed had cultuur van NRG op de flexibiliteit van NRG tijdens de corona crisis?*
  - *Wat voor invloed had de risk management van NRG op de flexibiliteit van NRG tijdens de corona crisis?*
  - *Wat voor invloed hadden de interne systemen en structuur van NRG op de flexibiliteit van NRG tijdens de corona crisis?*
  - *Wat voor invloed had communicatie binnen NRG op de flexibiliteit van NRG tijdens de corona crisis?*
  - *Hoeveel invloed had de verdeling van middelen binnen NRG op de flexibiliteit van NRG tijdens de corona crisis?*
- *Hoe had risk management een invloed op de flexibiliteit van NRG tijdens de corona crisis?*

Hoe is NRG veranderd na de corona crisis?
- *Wat heeft NRG geleerd van de corona crisis?*
- *Wat voor effect hebben de veranderingen die NRG heeft toegepast tijdens de corona crisis op de huidige bedrijfsvoering binnen NRG?*
- *Wat voor effecten hebben de veranderingen die NRG heeft toegepast tijdens de corona crisis op de cultuur van NRG?*

Afsluitende vragen

Wat voor thema's op het gebied van veranderingen onder onverwachte crisis situaties zijn er tijdens dit interview niet voorgekomen die je wilt toevoegen?
- *Waarom vind jij deze belangrijk?*

Wie van jouw collega's zou ik het beste kunnen bereiken voor dit onderzoek?
- *Wat is de functie/rol van deze collega?*
- *Kan jij mij introduceren aan deze collega voor een mogelijk interview?*

Wat voor mogelijke documenten die te maken hebben met NRG zouden mijn kunnen helpen met mijn onderzoek
- *Denk je dat het mogelijk is om deze documenten te ontvangen?*

Interview vragen iTrainee

Dit interview richt zich op de relatie tussen risk management vaardigheden en flexibiliteit via de ervaring van IT-service bedrijven tijdens de corona crisis. Tijdens het interview zullen er vragen zijn over de IT-service bedrijf risk management vaardigheden voor de corona crisis, tijdens de corona crisis en de relatie tussen risk management en flexibiliteit. Het interview zal anoniem worden afgenomen, worden opgenomen en zal naderhand getranscribeerd worden voor een data analyse.

Start vragen iTrainee

Wat is jouw functie binnen iTrainee?
- *Hoelang ben je al actief bij iTrainee?*

Hoe zou je iTrainee als bedrijf omschrijven?

- *Wat is de missie en visie van iTrainee?*
- *Wat is de essentiële taak die iTrainee uitvoert in de IT-markt?*

<div align="center">

Vragen omgang met een crisis/risico's voor de corona crisis

</div>

Deze vragen zullen zich focussen op de omgang van iTrainee met crisis situaties en risico's voor de corona crisis. De corona crisis vragen zullen hierna zijn.

Hoe ging iTrainee om met risico's?
- *Hoe werd er op mogelijke risico's voorbereid?*
  - *Hoe werd er informatie over mogelijke risico's verzameld?*
  - *Wat voor een soorten analyse systemen werden er gebruikt om deze informatie te verzamelen?*
  - *Hoe werd deze informatie over risico's intern verspreid door iTrainee?*
  - *In hoeverre werd risk management gebruikt door hoger management in een crisis situatie?*
- *werden plannen gemaakt als voorbereiding op risico's?*
  - *Hoe werden deze plannen gemaakt?*
  - *Wie was er verantwoordelijk voor het opstellen van deze plannen binnen iTrainee?*
  - *Wat werd er met deze plannen gedaan?*
  - *Hoe werden deze plannen intern verspreid door iTrainee?*

Hoe beschikbaar waren (financiële, fysieke, informationele en menselijke) middelen bij iTrainee?
- *Hoe zijn de financiële, fysieke, informationele en menselijke middelen verspreid over iTrainee?*
  - *Hoeveel overzicht heb je binnen iTrainee op de verspreiding van zijn middelen?*
  - *Waardoor was deze overzicht zo goed/slecht?*
  - *Wie was er verantwoordelijk voor de verdeling van de middelen bij iTrainee?*
- *Hoe werden deze middelen beschikbaar gemaakt?*
  - *Wat waren de mogelijkheden om middelen aan te vragen?*
  - *Hoe snel kwamen de middelen aan na een aanvraag?*
- *Hoe divers waren de middelen die toen der tijd beschikbaar waren?*

Hoe zag de interne structuur eruit van iTrainee eruit?
- *Hoe bestending was de interne structuur tegen crisis situaties volgens jou (en waarom)?*
  - *Hoe goed waren de zwaktes van de organisatie structuur in kaart gebracht door iTrainee?*
  - *Wat waren de plannen om deze zwaktes op te vangen tijdens een crisis situatie?*
- *Hoe afhankelijk waren de verschillende afdelingen van iTrainee van elkaar?*
  - *Hoe verliep de samenwerking tussen de verschillende afdelingen binnen iTrainee?*
- *Hoe verliep communicatie tussen de verschillende afdelingen van iTrainee?*
  - *Wat voor interne communicatie middelen/systemen worden er gebruikt binnen iTrainee?*
  - *Wanneer was er wel/geen communicatie tussen de verschillende afdelingen van iTrainee?*
  - *Wat was de mate aan kennisdeling tussen de verschillende afdelingen van iTrainee?*

Wat was de rol die het (hoger) management in nam tijdens een crisis situatie?
- *Wat was de houding van (hoger) managment op risico's en crisis situaties?*
- *Hoe communiceert (hoger) management met de rest van de organisatie?*
- *Hoe probeerde het (hoger) management zijn medewerkers te ondersteunen in een crisis situatie?*
- *Wat voor een initiatieven nam het (hoger) management om te reageren op een crisis situatie?*

Hoe zag de cultuur van iTrainee eruit voor de corona crisis?
- *Hoe formeel was de cultuur van iTrainee?*
- *Hoe beïnvloede de cultuur van iTrainee de houding die de organisatie had bij het nemen van risico's?*
  - *Wat was de houding van personeel op het nemen van risico's?*
- *Hoe proactief werd er bij iTrainee omgaan met een crisis?*

- o *Waarom was iTrainee zo proactief/ niet poractief?*
- o *Wat leerde iTrainee van een crisis situatie?*

Vragen gebruik resilience capabilities tijdens corona crisis

Deze vragen focussen zich op de risk management vaardigheden die daadwerkelijk toegepast zijn door iTrainee.

Hoe voorbereid was iTrainee op de corona crisis?
- Wat was er goed aan de voorbereidingen die iTrainee had gemaakt voor de corona crisis?
- Wat had iTrainee beter kunnen doen om zich voor te bereiden op de corona crisis?
  - o *Hoe werden de informatie/data systemen van iTrainee gebruikt tijdens de voorbereiding op de corona crisis?*
  - o *Wat voor plannen waren er gemaakt om te reageren op de corona crisis?*
  - o *Hoe verliep communicatie over de plannen tijdens de corona crisis?*
  - o *Hoe verliep de uitvoer van deze plannen tijdens de corona crisis?*

Hoe verliep de samenwerking binnen iTrainee tijdens de corona crisis?
- Wat ging er goed aan de samenwerking van iTrainee tijdens de corona crisis?
- Wat kon iTrainee doen om de samenwerking te verbeteren tijdens de corona crisis?
  - o *Hoe verliep de interne communicatie tijdens de corona crisis?*
  - o *Wat voor een effect had de afhankelijkheid van de afdelingen van iTrainee op de samenwerking?*
  - o *Hoe verliep het delen van kennis tussen de afdelingen tijdens de corona crisis?*

Wat gebeurde er met de interne structuur van iTrainee tijdens de corona crisis?
- Hoe goed verliepen de bedrijfsprocessen van iTrainee tijdens de corona crisis?
  - o *Welke bedrijfsprocessen vielen weg?*
- Hoe goed werkte bedrijfssystemen (communicatie middelen, interne platforms ect) tijdens de corona crisis?
- Wat werd er gedaan om missende bedrijfsprocessen of bedrijfssystemen op te vangen?

Hoe beschikbaar waren de middelen van iTrainee tijdens de corona crisis?
- Wat gebeurde er met de verdeling van middelen in de organisatie?
- Wat gebeurde er met de diversiteit aan beschikbare middelen?
- Wat voor een effect had de corona crisis op de snelheid dat middelen aankwamen na een aanvraag?

Hoe ondersteunde het (hoger) management de medewerkers tijdens de corona crisis?
- Hoe goed begreep (hoger) management de effecten van de corona crisis?
- Hoe verliepen de initiatieven die het hoger management uitvoerde tijdens de corona crisis?
- Hoe was de communicatie van het hoger management tijdens de corona crisis?

Hoe hielp de cultuur van iTrainee tijdens de corona crisis?
- Hoe hoog was de respons van de medewerkers op de corona crisis?
- Wat veranderede er tijdens de corona crisis aan de cultuur van ITrainee?

Vragen resilience capabilities en flexibiliteit

Deze vragen richten zich op de relatie tussen risk management vaardigheden en flexibiliteit binnen iTrainee.

Hoe flexibel was iTrainee tijdens de corona crisis?
- Wat waren de voornaamste redenen voor de flexibiliteit die iTrainee had tijdens de corona crisis?
  - o *Wat voor invloed had hoger management op de flexibiliteit van iTrainee tijdens de corona crisis?*
  - o *Wat voor invloed had cultuur van iTrainee op de flexibiliteit van iTrainee tijdens de corona crisis?*
  - o *Wat voor invloed had de risk management van iTrainee op de flexibiliteit van iTrainee tijdens de corona crisis?*
  - o *Wat voor invloed hadden de interne systemen en structuur van iTrainee op de flexibiliteit van iTrainee tijdens de corona crisis?*
  - o *Wat voor invloed had communicatie binnen iTrainee op de flexibiliteit van iTrainee tijdens de corona crisis?*

- o *Hoeveel invloed had de verdeling van middelen binnen iTrainee op de flexibiliteit van iTrainee tijdens de corona crisis?*
- *Hoe had risk management een invloed op de flexibiliteit van iTrainee tijdens de corona crisis?*

Hoe is iTrainee veranderd na de corona crisis?
- *Wat heeft iTrainee geleerd van de corona crisis?*
- *Wat voor effect hebben de veranderingen die iTrainee heeft toegepast tijdens de corona crisis op de huidige bedrijfsvoering binnen iTrainee?*
- *Wat voor effecten hebben de veranderingen die iTrainee heeft toegepast tijdens de corona crisis op de cultuur van iTrainee?*

Afsluitende vragen

Wat voor thema's op het gebied van veranderingen onder onverwachte crisis situaties zijn er tijdens dit interview niet voorgekomen die je wilt toevoegen?
- *Waarom vind jij deze belangrijk?*

Wie van jouw collega's zou ik het beste kunnen bereiken voor dit onderzoek?
- *Wat is de functie/rol van deze collega?*
- *Kan jij mij introduceren aan deze collega voor een mogelijk interview?*

Wat voor mogelijke documenten die te maken hebben met iTrainee zouden mijn kunnen helpen met mijn onderzoek
- *Denk je dat het mogelijk is om deze documenten te ontvangen?*

7.2 Appendix B

Total categorical codes

| Code	Categorical codes description	Stage	Amount	Total
LC1	Higher management build confidence and social support for subordinate managers and employees to motivate change.	Anticipation	3	50
		Coping	44	
		Adaptation	3	
LC2	Organisations use of risk management skills (analysing the environmental changes, assessing risk or taking preventive measures).	Anticipation	15	46
		Coping	25	
		Adaptation	6	
LC3	Higer management facilitated and supported employees in order to create a positive attitude towards implemented changes.	Anticipation	1	31
		Coping	27	
		Adaptation	3	
BPC1	Organization used statistical and information technology tools to gather information about changes.	Anticipation	25	35
		Coping	5	
		Adaptation	5	
BPC2	Organisation determined the risk of disruptions and their impact when making choices on reacting or adapting to changes that occurred during the crisis.	Anticipation	25	64
		Coping	25	
		Adaptation	14	
RC1	Presence of redundant resources within the organisation;	Anticipation	3	11
		Coping	6	
		Adaptation	2	
RC2	Presence of resources constraints within the organisation;	Anticipation	2	23
		Coping	19	
		Adaptation	2	
RC3	Use of the relational, financial and technological resources.	Anticipation	2	19
		Coping	15	
		Adaptation	2	
GC1	Governance and decision making principles where used during the crisis.	Anticipation	10	40
		Coping	20	
		Adaptation	10	
GC2	Formal organisational mechanisms (like meetings, online networks or organisational events) where used during the crisis	Anticipation	10	52
		Coping	32	
		Adaptation	10	
COC1	The amount and types of communication between organisation departments about the unexpected change.	Anticipation	7	44
		Coping	32	
		Adaptation	4	
COC2	The amount and types of knowledge sharing, information sharing and joint planning was done within the organisation.	Anticipation	7	42
		Coping	32	
		Adaptation	3	
IC1	The amount of physical or intangible systems and assets whose failure or damage would have a critical impact on the operations are present in the organisation.	Anticipation	15	32
		Coping	14	
		Adaptation	3	
IC2	The amount and use of security and safety systems that are present in the organisation.	Anticipation	9	32
		Coping	19	
		Adaptation	4	
COC3	the use of negotiation and communication with external parties to reduce the impact of changes during a crisis. "NEW"	Anticipation	6	31
		Coping	23	
		Adaptation	2	
GC3	The use of perceived cultural norms within an organisation to make decisions during crisis situations. "NEW"	Anticipation	23	97
		Coping	57	
		Adaptation	17	

Total descriptive codes

| Code	Descriptive codes	Stage	Amount	Total
LC	Leadership capability	Anticipation	19	127
		Coping	96	
		Adaptation	12	
BPC	Business process capability	Anticipation	50	99
		Coping	30	
		Adaptation	19	
RC	Resource capability	Anticipation	7	53
		Coping	40	
		Adaptation	6	
GC	Governance capability	Anticipation	43	189
		Coping	109	
		Adaptation	37	
COC	Collaboration capability	Anticipation	20	116
		Coping	87	
		Adaptation	9	
IC	Infrastructure capability	Anticipation	24	64
		Coping	33	
		Adaptation	7	

7.3 Appendix C

Appendix C shows internal and external documentation used for this research.

Organisation matrix, NRG-Office, Before COVID-19 Pandemic (see below).
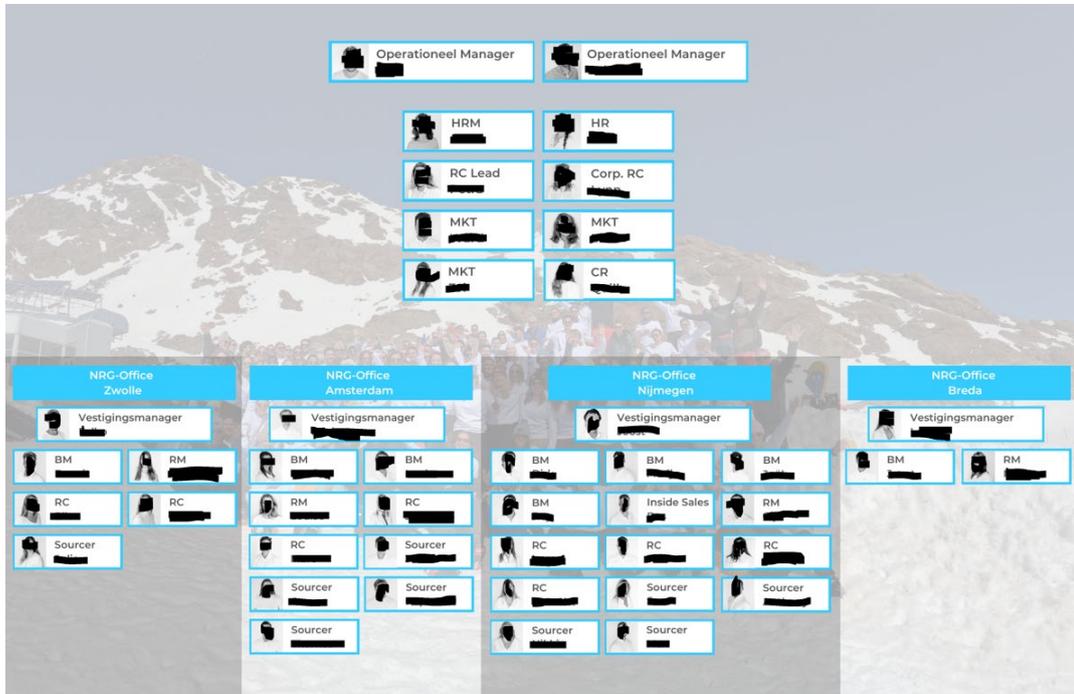
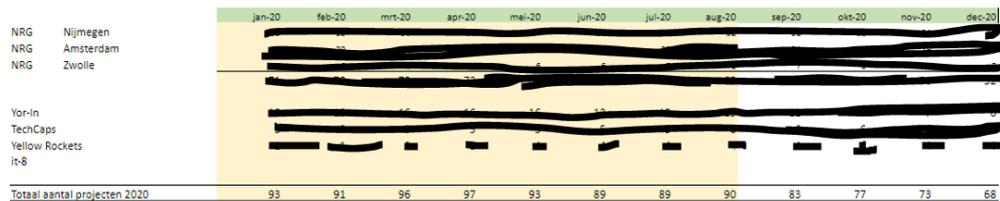Organisational matrix, NRG-Office, After COVID-19 pandemic (see below)
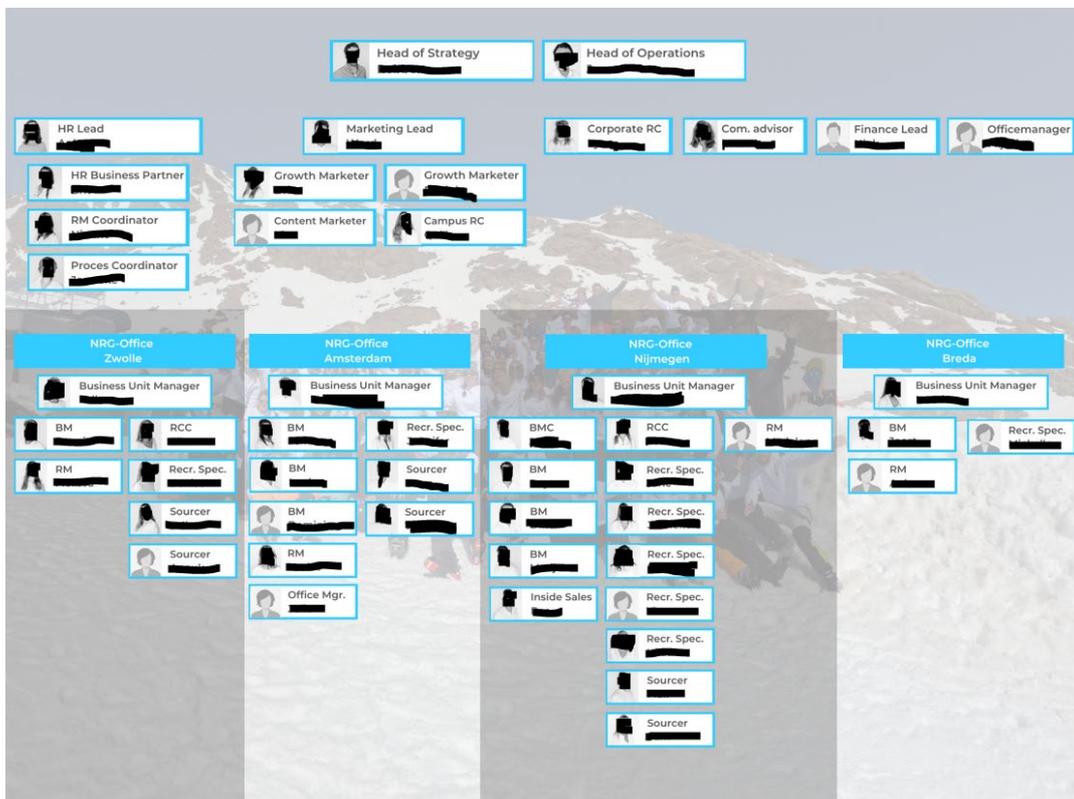
Slides NRG-Office Callin night, about state of affairs COVID-19 pandemic (see below).

1.

IIIIII Inbelavond: terugblik 2020

- T.o.v. Q1 halvering aanvragen in Q2, Q3 tijdens vakantie periode stabiel, groei in sep lijkt aan te trekken
- Team A'dam weg per 1 juni
- Resultaat van inkrimping was extra druk op team Nijmegen → gevolg 'op de winkel passen' i.p.v. groei en verbetering van dienstverlening
- Corona zorgt voor stopzetten activiteiten.

		jan-20	feb-20	mrt-20	apr-20	mei-20	jun-20	jul-20	aug-20	sep-20	okt-20	nov-20	dec-20
NRG	Nijmegen												
NRG	Amsterdam												
NRG	Zwolle												
Yor-In													
TechCaps													
Yellow Rockets													
It-8													
Totaal aantal projecten 2020		93	91	96	97	93	89	89	90	83	77	73	68

2.

IIIIII inbelavond: vooruitblik 2021

- Stabilisatie en verwachte groei zorgt voor ruimte om basis te verstevigen
- Stappen voor versteviging bij LL zijn; RM (■■■■■) terug, projectmanager, ondersteuning team door externe coach
- Stappen voor versteviging personeelsbasis bij NRG; Teamlead NRG Nijmegen, Operationeel groei manager NRG en BM
- Stappen voor versteviging Yorin; BM
- Focus op verbinding (Kickstart, Lean en planning activiteiten in kleine groepen)

Company correspondence iTrainee (march 2021) about the COVID-19 Pandemic (see below)

iTrainee

'Nog even geduld....'

Beste collega's,

Kwartaal 1 van het jaar is alweer zo goed als voorbij. De tijd vliegt want de laatste nieuwsbrief is alweer van oktober vorig jaar. Alweer meer dan 1 jaar hebben wij te maken met Corona en al de bijbehorende maatregelen. Gevoelsmatig lijkt er geen einde aan te komen. Het aantal besmettingen blijft hoog, de maatregelen worden telkens verlengd....oh wat zou toch iedereen blij zijn als wij weer naar een meer normaal leven kunnen gaan. Maar goed "nog even geduld" is wat wij al enige tijd horen maar het grote verschil is dat wij nu midden in een vaccinatie periode zijn beland die naar verwachting toch echt wel ons allen weer terug kan brengen naar een weer gezond en een dagdagelijks bestaan zonder of met minimale maatregelen.

Als je nog even terugblikt naar afgelopen jaar, zijn wij ondanks de omstandigheden erg goed doorgekomen. Bijna 100 trainees zijn afgelopen jaar enthousiast aan ons trainingsprogramma gestart. Qua aantal groepen zijn wij de 100 grens voorbijgeschoten en dat is weer een mooie mijlpaal in de geschiedenis van iTrainee. Verder zijn wij qua omzet ed. wederom gegroeid t.o.v. de vorige jaren en hebben ook weer een aantal mooie opdrachtgevers aan ons weten te binden. Onder deze opdrachtgevers hebben wij zes nieuwe labels mogen toevoegen, namelijk: Achmea, Hema, Vitens, Medtronic, Gazelle en het Ministerie van Defensie. Daarnaast zijn er ook nog drie opdrachtgevers uit het verleden weer terug en dat zijn ProQR, Huris en Strukton.

Wat wij afgelopen jaar hebben gezien is dat het geduld van menig iTrainee op de proef werd gesteld. Startdata werden opgeschoven of soms helemaal gecanceld. Dat "geduld" i.c.m. alle Corona maatregelen maakte het extreem moeilijk. Erg knap hoe deze groep zich heeft gehouden want kijkende naar de motivatie en inzet heeft zich dat vertaald in hele mooie inzetten bij opdrachtgevers. iTrainee kan natuurlijk niet de maatregelen wegnemen en zijn genoodzaakt om zoveel mogelijk digitaal te organiseren. Wel hebben wij getracht om een breder trainingsprogramma aan te bieden en met name in die vertraagde matchingsperiode meer contactmomenten met de desbetreffende trainees op te zoeken. Ook hebben wij in het begin van dit jaar een vitaliteitsworkshop gehouden om iedereen ook weer even mee te nemen naar hoe je ondanks de digitale werkzaamheden je zelf ook gezond kunt houden. Dit was een succesvolle sessie en vandaar dat wij nu voor iedere nieuwe trainingsgroep dit een vast onderdeel van het programma gemaakt hebben.

Dit jaar kent ook weer een mooie start. Wij hebben in het eerste kwartaal bijna 40 trainees op een gave opdracht kunnen plaatsen. Zoals vaker door mij gezegd is, is de vraag naar jonge talenten niet verdwenen door Corona. Wel is het voor veel klanten puzzelen en heerst er een bepaalde voorzichtigheid. Ook de trainees die afgelopen jaar en dit jaar aan het werk zijn bij een opdrachtgever merken de bijzondere omstandigheden. Ieder bedrijf heeft min of meer buiten de standaard maatregelen nog zijn eigen extra maatregelen getroffen. Er zijn dus trainees die ook al een jaar niet meer ergens op een kantoor zijn geweest. En daar waar je wel op kantoor mag komen heb je heel strenge maatregelen. Wat inmiddels wel een feit is, is dat de onze opdrachtgevers gelukkig gewend zijn geraakt aan het digitaal starten van een trainee. Iets wat een jaar geleden nog bijna ondenkbaar was is en vandaag de dag heel normaal wordt bevonden. Maar goed, ook

ondanks alle maatregelen zijn onze klanten zeer tevreden over de trainees die aan het werk zijn en wordt er uitgesproken dat het knap is dat jullie in deze bijzondere omstandigheden een mooie leercurve aan het maken zijn. Chapeau zou ik zeggen!

Ook in 2021 blijven wij niet stilstaan en gaan wij door met onze ontwikkelingen. Buiten ons SAP College zijn wij inmiddels ook gestart met het ontwikkelen van competenties die in het verlengde liggen van de SAP-ontwikkelingen. Het eerste initiatief wat is opgestart heeft te maken met Low Code ontwikkelingen. Afgelopen december is de eerste groep als aanvulling op het SAP College opgeleid in het Outsystems Low Code platform. Met name de combinatie SAP/Low Code heeft er ook voor gezorgd dat wij al snel opdrachten hebben kunnen realiseren. Dit jaar gaan wij deze ontwikkeling doorzetten en ook onderzoeken of andere initiatieven mogelijk zijn.

Qua vorm van lesgeven is het trainingsteam samen met een externe partner aan het bekijken hoe wij de trainingsvorm ook kunnen laten aansluiten op moderne onderwijs technieken. Naar verwachting gaan eventuele veranderingen wat verder in het jaar plaatsvinden. Als het gaat over de SAP-inhoud zijn wij afgelopen jaar, net als veel klanten, gestart met de transformatie naar S4HANA. Verder kunnen wij jullie vertellen dat per 1 mei een nieuwe trainer zal starten.   Met deze versterking zijn wij ook in staat om eventuele veranderingen door te voeren.

Het recruitment en salesteam zijn vol aan de slag om nieuwe trainees en klanten aan ons te binden. De eerste 3 trainee groepen van 2021 zijn met 26 trainees goed gevulde groepen. Groep 106 is als laatste halverwege maart gestart. Inmiddels hebben wij met Dimensys de eerste nieuwe klant van dit jaar mogen verwelkomen. Kijkend naar de sales pipeline zitten er nog meer nieuwe klanten in het vat.

Maar voor nu....."nog even geduld"....hopen dat het vaccinatieprogramma snel doorgezet kan worden, de besmettingen gaan dalen, daardoor de maatregelen afslanken en wij allen weer echt. Kunnen genieten van leuke dingen.

Bij deze wil ik jullie een vrolijke en vooral gezond Pasen toewensen!

Mocht je nog vragen hebben laat het dan gerust weten.

Blijf gezond en let goed op je zelf!

Fijne groet,

Company Correspondence iTranee (December 2020), about COVID-19 (see below).

iTrainee

"Het is bijna Kerst............"

Beste collega's,

Nog een aantal weken en dan is het alweer kerstmis en belanden wij aan het einde van een jaar wat waarschijnlijk nog lang in de geschiedenisboeken zal terugkomen als het Covid-19 jaar. Een jaar waarin gebeurtenissen hebben plaatsgevonden die van tevoren ondenkbaar waren. Helaas veel te veel mensen gestorven en ziek geworden van een virus wat tijdens de verspreiding ongekende en vooral ook onverwachte sprongen heeft gemaakt. Buiten alle mensen die besmet geraakt zijn heeft dit virus helaas ook een enorme impact op de mensen die in de zorg alle zeilen moe(s)ten bijzetten.

Alle noodzakelijk maatregelen om het virus tegen te gaan heeft er ook voor gezorgd dat het bedrijfsleven een enorme strijd heeft moeten voeren om overeind te blijven. En ook deze strijd is voor heel veel bedrijven nog steeds gaande.

Kortom een moeilijk jaar waar ook echt iedereen persoonlijk in meer of mindere mate heeft ondervonden wat een dergelijk virus kan aanrichten.

Als wij dan dichtbij huis blijven en kijken hoe wij met iTrainee door dit jaar heen zijn gevaren dan mogen wij denk ik met elkaar trots zijn op de behaalde resultaten en de wijze waarop eenieder in zijn vakgebied heeft geacteerd op de effecten en maatregelen rondom het Covid-19 virus. En helaas zijn ook een aantal collega's besmet geraakt met het virus maar gelukkig waren die weer redelijk snel op de been.

In een eerdere nieuwsbrief heb ik aangegeven dat wij met name geduld moeten hebben door de vertragingen die wordt opgelopen bij het vinden van een mooie opdrachtgever. Maar gelukkig zijn er uiteindelijk een behoorlijk aantal matches gerealiseerd en hebben wij een ook aantal mooie nieuwe klantnamen op onze lijst mogen noteren. Bij deze wil ik dan ook namens "team iTrainee" eenieder bedanken voor zijn bijdrage aan het iTrainee resultaat maar vooral ook in het vertrouwen wat eenieder aan iTrainee geeft in de zoektocht naar uitdagende opdrachten.

Door alle lopende maatregelen moeten wij helaas onze jaarlijkse kerstborrel aan ons voorbij laten gaan. Dat wil natuurlijk niet zeggen dat wij niet iets alternatiefs hebben bedacht. Het is deze keer helaas niet samen maar eenieder moet zeker in de komende weken de postbode in de gaten houden.

Namens het gehele iTrainee team willen wij jullie en jullie families een extra fijne kerst en een heel gezond en gelukkig nieuwjaar toewensen. En laten wij de wens uitspreken dat wij in 2021 ook met z'n allen weer afscheid kunnen gaan nemen van het Covid-19 virus.

Blijf gezond en let goed op je zelf!

Fijne groet,

www.itrainee.nl