All on board?
Supervisory boards in transition
A study on supervisory boards regarding Digital Transformation

Master thesis Business Administration 2019-2020
Organizational Design and Development
Radboud School of Management

Name: C.F.J. (Chris) Garstenveld

Student number: s1022331

Supervisor: dr. A. Verhoeff (Arjen)

Examiner: dr. S. Schembera (Stefan)

June 15th, 2020

II

Preface

Dear reader,

In front of you, I present my thesis: 'How are supervisory boards informed about the digital transformation, and from what perspective do supervisory boards' evaluate on this development?'

After graduating in Business Administration at the University of Applied Sciences in 2018, I decided, instead of finding a fitting job, to aim for the academic adventure. By choosing to further educate myself by obtaining academic knowledge, I consider to be of greater value for organizations and society, having better opportunities in finding an appropriate job, and above all to develop myself on a personal level. Now, almost two years later, I do not regret the choice made. The last two years, and especially the last six months (January 2020 – June 2020) of conducting the master thesis, have been eye-opening, intensive, and above all, very worthwhile. Having had the opportunity to write a master thesis in times of COVID-19 was challenging, but due to the ingenuity of all individuals involved, I was able to fulfil my objective. I would like to express my gratitude to all people who were involved in the accomplishment of my master thesis.

Thank you, Dr. A. (Arjen) Verhoeff, for the pleasant guiding, expertise on the topic, and excellent support regarding the process. Above all I want to thank you for getting me in touch with inspiring people in, for me the onetime unexplored, the societal field of supervisory boards and governance: this certainly contributed to my ability to bridging and interpreting literature to practice patterns. Furthermore, I want to thank Dr. S. Schembera for his helpful feedback on my initial research proposal. Essential in this study are the respondents and the experts I have been speaking with about the Dutch world of internal governance. I want to thank all of you for your willingness and adaptability to participate in these disturbing times, especially for getting in touch quickly. Moving from my students' house to my parents home due to COVID-19 asked adaptability from my parents, brother, and girlfriend, thank you.

I hope you all do enjoy reading my thesis,

Chris Garstenveld
Vragender, June 15, 2020

Abstract

In the Netherlands, internal governance is to be executed by supervisory boards provisioning interests for the organization they serve, and the interest of all stakeholders involved. Nowadays, the digital transformation brings complexity and adds new challenges to the supervisory boardroom. Supervisory boards need to go along with external developments in order to understand the effects for the organization they supervise. With regard to the digital transformation, stakeholder groups compete for influence on the perception of supervisory boards with regard to this irreversible transition and internal governance role to be fulfilled by these boards. This study addresses a relatively unexplored area of role perceptions in relation with the digital transformation as evaluated by supervisory boards. Firstly, I conducted a document analysis in order to explore if and how supervisory boards are aware and informed about the digital transformation and its implications. Secondly, I conducted 16 interviews with supervisory boards (13) and experts (3) to study different theoretical perspectives held regarding the role supervisory boards fulfill for certain internal and external stakeholder groups. Findings indicate that supervisory boards are aware on the presence of the digital transformation. Simultaneously, supervisory boards do struggle in creating a clear contextual perspective for the organization they serve. Subsequently, data shows that most supervisory boards prefer stewardship characteristics over agency characteristics. Despite some solely internal and external perspectives, supervisory boards evaluate and serve their organization from both internal and external coalition perspective, a mixed perspective. This study, besides it contributed to the literature, provided several insights and recommendations on Dutch internal governance with regard to the digital transformation.

Keywords: Organizational design, internal governance, supervisory boards, digital transformation, stakeholders

Contents

Chapter 1: Introduction

1.1 Active governance, fit for purpose?

Supervisory boards members have the duty by law to supervise, monitor and advise the management board while acting in the best interests of an organization and the interest of all stakeholders involved. The post-dotcom decade has shown firms, both established and startups, taking advantage of the rising global connectivity, increased availability of appropriate levels of information and knowledge to adapt their business infrastructure to the new digital era (Bharadwaj et al., 2006; Schallmo & Williams, 2016). In this digital era, an organization should enhance their competitive positions by improving their ability to respond in a timely way to rapid and ongoing developments in a digital context (Bezemer, Peij, Maasen & Van Halder, 2012; Christensen & Westenholz, 1999; Klososky, 2011; Maassen & Van Den Bosch, 1999; Nelson & Winter, 1982; Postma, Van Ees & Sterken, 2000). Nowadays, a supervisory board is facing the challenge monitoring an increasing complexity in a networked age because organizations are challenged to go along with or even initiate digital developments which change the way organizations operate. The aim of this thesis is to explore whether supervisory boards are actively evaluating the impact of digitalization as a whole and its implications for the organization and stakeholders they serve: are they aware of the digital transformation and its implications. If so, what does this transformation imply for their supervisory role perspective regarding multiple stakeholders?

When a change in socioeconomic context has a substantial impact on an organization, it is to be expected that organizations will attempt to take action to ensure continued success and viability. Thompson (1967) made clear, already before the digital revolution, that organizations try to achieve control over their environments as an organization is dependent on the organizational environment by means of its resources. Ignoring our networked age and the digital transformation is, therefore, not an option as it will accelerate the failure and decline of organizations (Christensen, Clayron, Raynor & McDonald, 2015; Vermeulen, 2015). To survive organizations should, especially in the digital era, develop the ability to adapt themselves and their goals continuously in a fundamental manner to stay viable and ensure existence in their complex digital environment (Achterbergh & Vriens, 2010; Burnes, 2004; Pfeffer, 1972; Vukanovic, Friederichsen & Pavlovic, 2019). Organizational viability can be supported by adopting (new) suitable business strategies and models for this new world of digital business to not become obsolete in the very near future (Al-Debi et al., 2008; Klososky, 2011; Schwertner, 2017). Therefore, organizations try to enhance their

competitive positions by improving their ability to respond quickly to rapid environmental changes with new high-quality business decisions. As a result, transferring into a digital business model has become critical to the success of any business in order to ensure their viability for the future (Haslam, Anderson, Tsistianis & Yin, 2012; Schwertner 2017).

Nowadays, many organizations are getting used operating in a digital business context. Business models in the digital era leverage networked technologies to facilitate economic exchange by transferring information and connecting people and disrupted existing businesses because digital business model breaks through existing physical networks between organizations and people (Brousseau & Penard, 2007; Fenwick, McCahery & Vermeulen, 2019; Schwertner, 2017). Companies such as Google, Netflix, and Microsoft start or continue to adjust and fine-tune their corporate scope by taking advantage of digital developments to ensure their existence. To illustrate, the Dutch Banking company ING is disruptively transforming from a traditional supplier of financial products and services into a tech-company offering and servicing a digital-platform as a digital intermediary (Hulshoff Pol, 2019; Kiron & Unruh, 2019). As a result of the above-mentioned digital transformation, business models are shifting from a traditional model acting in a stable environment with low levels of competition and high certainty into a digital model acting in a dynamic environment with high levels of competition and uncertainty (Al-Debi, El-Haddadeh & Avison, 2008).

It is a fascinating but simultaneously challenging time for organizations because operating in a digital era requires a different strategy for organizing entrepreneurial activities. Although the organizational environment is mainly taken as exogenous by organizations, governance is not suspending but remains operative as digital business models force companies to rethink their structure, content, and internal governance (Fenwick & Vermeulen, 2019; Tsiatsis et al., 2019). Therefore, the digital transformation may challenge the way of supervising an organization. Governance of traditional business is usually based on well-known organizational design approaches with its accompanying parameters, but digital markets may require a fundamentally different organizing principle. Fenwick, McCahery, and Vermeulen (2019) stated that if companies want to adapt to the unique challenges of a tech-driven global economy driven by digital transformation, existing regulatory approaches face an uncertain future when board members do not fully understand the sources of the strengths and limitations of their existing business models and the premises behind the digital developments. This leaves the directors and supervisors of organizations unable to know when their organizational core business requires a new business model (Christensen & Johnson, 2009, Niemand, Rigterin, Kallmünzer, Kraus & Matijas, 2017; Vermeulen, 2015). In

the Netherlands, regulated by law, corporate governance's primary purpose is that organizations as legal entities must take into account stakeholders involved in the interests of the company and should, therefore, protect the interests of all stakeholders by creating long-term value (Monitoring Commissie,2016). - A further elaboration about the purpose and content of the Dutch Code of Corporate Governance is stated in appendix I -.

Anticipating digital developments in the age of ever shorter innovation cycles is crucial to optimize a firm's chance of long-term success or even its very survival (Bezemer et al., 2012; Fenwick et al., 2019). This leads to an increasing need for appropriate internal regulatory mechanisms as the organizational need to operate in a new and, moreover, fast-moving market environment (Fenwick & Vermeulen, 2019; Williamson, 1996). It is important that supervisory boards have substantive knowledge, present among one or more board members, of products, product cycles, and the continuous innovation on digitalization to properly fulfil their role (Vermeulen, 2015). Awareness and knowledge about all facets in the company and its socioeconomic context are needed to ensure effective internal governance. A supervisory board should, in order to execute their function, be aware of and engage the implications concerning the current wave of digitalization because the digital transformation creates the need for even more critical supervision to ensure stakeholders' long-term value. But in corporate governance, a lot is unknown on what digital transformation means for the future of businesses. This can be considered a very crucial concern because jurisdictions that get corporate governance law right stand to benefit enormously now and in the future (Fenwick & Vermeulen, 2019). A supervisory board is a whole of representatives responsible for supporting the board through acting as sparring partners and advisors to ensure the company's long-term interests. But as a highly centralized and dense network of non-executive directors might create an insular social system whereas supervisory board members act as rubber stamps: are supervisors merely the pawns of the shareholders, or are they highly effective watchdogs embracing far-reaching digital developments in order to ensure the long-term interest of other stakeholders. If so, this thesis aims at investigating which supervisory board perspectives' can be distinguished (Bezemer, Maassen, Van den Bosch & Volberda, 2007; De Boer, Huisman & Meister-Scheytt, 2010; Fenwick & Vermeulen, 2019; Monitoring Commissie, 2016; Sundaramurthy & Lewis, 2003;).

1.2 Motivation and gap

The transition from traditional business models into new digital business models, driven by the digital transformation, has been studied almost limitless (Berman, 2012; El Sawy & Pereira, 2013; Matt, Hess & Benlian, 2015; Weill & Woerner, 2015). But this study focuses on the awareness and evaluation of this development from a supervisory boards' perspective regarding their role in internal governance in the Dutch context in relation to organizational design. When an organization is anticipating on the digital future, a supervisory board should see, according to the Dutch Corporate Governance Code, a role in discussing the strategy for organizational design with regard to the all the stakeholders they serve. Therefore, supervisory board must have the agility in accommodating the increasing pace of technological developments or limit any potential unintended consequences of the transformative changes executed by the organization. These topics regarding the implication of a significant digital organizational change are subject to this study. This study investigates if supervisory boards are aware of and react to digitalization and its effects regarding their stakeholders driven by specific perspectives.

As a first orientation, a literature search has been executed in (academic) databases such as LexisNexis, Google Scholar, Academia.edu and Jurn.org and on keywords and related concepts, such as: 'digital business & corporate governance', 'supervisory boards', 'digitalization, influences on supervisory boards', 'supervisory boards in a digital world', 'supervisory boards and corporate governance' and 'awareness of governance in a digital age'. My review of literature on these topics concluded that there is some, more abstract, academic literature on individual concepts, but not the specific relation between the digital transformation, and on how this is perceived and influences supervisory boards in an organizational design perspective. The few available literatures rely mainly on one-tier board structures concerning some digital developments and the relationship with stakeholders such as consumers (Luoma & Goodstein, 1999; Maassen, 1999; Minow, 1991; Salvioni & Bosetti, 2006) and on governance on primary tasks and processes in relation with changing business models in a particular industry. There is no specific academic literature from what perspective supervisory boards perceive and (re)act on these developments. (Breuer & Lüdeke-Freundd, 2017; Lu, Rong, You & Shi., 2014; Schmidt, Drews & Schirmer, 2017; Sun, Yan, Lu, Bie & Thomas, 2012; Dreyer, Lüdeke-Freund, Hamann, & Faccer, 2017). The lack of knowledge (gap) makes the topic and subject unique and relevant.

1.3 Research objective and research question

The aim of this study is to explore insights on if and how supervisory boards of organizations incorporate awareness and knowledge of the digital transformation, with regard to how they perceive stakeholders, into their vision and functioning. Therefore, do they (re)act and design their decisions, and composition regarding the governance condition that the organization they serve has to ensure their long-term value and become not obsolete. This leads to the following research question:

How are supervisory boards informed about the digital transformation, and from what stakeholders perspective do supervisory boards' evaluate on this development?

1.4 Relevancy and contribution of this study

As this topic of interest is quite specific and has not been studied well yet, we can say that the area of the phenomena studied is still an unexplored frontier. The findings of this study directly contribute to knowledge and literature on the relationships between the digital transformation and how supervisory boards evaluate, shaped by their perspective on the role they fulfil and act on this development with regard to the stakeholders of the organization they serve. Supervisory boards, and boards in a more general way, are commonly known as a part of the old boys' network. This hold for boards consisting of individuals who hold the same characteristics; men aged above 50 and who commonly share their educational background, hold the same political views and have strongly shared social norms and beliefs. Furthermore, these groups are characterized by the fact that they continuously try to safeguard and defend their elite position in society (Edling, Hobdari, Randoy, Stafsuud & Thomsen, 2012; Heemskerk & Fennema, 2009). Useem (2003, p. 251) phrased the importance of the decisions behind closed doors in his research ''so much occurs behind closed doors – and because it is what the directors do behind those doors that so determines the company's future performance''. Consequently, this research might slightly open the boardrooms 'door of supervisory boards to get an insight into their perceptions, motives and how they act on the perceived environment regarding the specific circumstances addressed. As this study purposes the perceived influence of (digital) external developments on supervisory boards and how the motives of supervisory boards are subject to change due to digital transformation of the

organization they serve, it contributes to the emerging of a more 'all-inclusive' perception, knowledge of the of supervisory boards. This research will also contribute to practice.

Due to digital transformation and disruptive technologies existing and still to be developed, more and more organization will embrace digital business models in the very near future. Therefore, companies are forced to rethink their strategies, objectives, and capabilities (Fitzgerald, Kruschwitz, Bonnet & Welch 2013; Urbach, Drews & Ross, 2017). The outcome of this study can guide supervisory boards of companies who still have to develop or are in the development of the digitalization of their organization and accompanying business model. As supervisory boards could benefit and learn lessons from how fellow organizations experimented and incorporated the external developments into their governing function and decisions made, they can incorporate the knowledge gained in their functioning and the decision to make in the role they fulfil for the organization they serve future wise. Supervisory boards, therefore, create more value as they have greater capabilities and can more effectively perform their tasks and cover the blind spots that the organization might have by having a profound understanding of the business (Kratz, Roos, Pidun & Stange, 2018; Sturman, 2003). Moreover, this research is highly relevant to society and organizations. Over the last 25 years, the influence of shareholders has grown significantly, and the financial press and the general public have become more vocal and critical. These developments are driven by an increasing influence of the Anglo-American shareholder model on the Rhineland stakeholder model in the Netherlands. But, if there is no acceptance regarding organizational activities by stakeholders, society, or even the community, a company may not be able to continue its operations without serious delays or costs (Hooghiemstra & Van Ees, 2011; Wilburn & Wilburn, 2011). This calls even more for active, hence effective governance.

1.5 The Dutch Case

In the Netherlands, an effective governance instrument of self-regulation utilizing its uniform standards is the 'Corporate Governance Code'. Based on the intrinsic motivation of the organization and its individuals, the code does offer room for control by self-regulation concerning management and board supervision as it contains a large number of recommendations. The code, further elaborated in appendix I, creates a set of standards governing the conduct of the management board, supervisory board, and stakeholders. The Dutch corporate governance code is mainly established to address deficiencies in the governmental governance system (Akkermans et al., 2006; Hooghiemstra & Van Ees, 2011;).

In the footsteps and rising awareness of corporate governance for listed companies, corporate governance codes in multiple Dutch industries arose at the beginning of the 21st century. The fact that the code is seen as an appropriate approach to solving issues identified in other industries and society as a whole is a big compliment to its strength (Bestuurderscentrum, 2019; De Groot, 2015; Goodijk, 2012). By recommending a comprehensive set of norms on the role and composition of the board of directors, relationships with stakeholders and top management, auditing and information disclosure, and the selection, remuneration, and dismissal of directors and top managers, governance can be guided by the code (Akkermans et al., 2006; Hooghiemstra & Van Ees, 2011;). The Dutch Corporate Governance Code propositions its functions in five areas: 'Compliance with and enforcement of the code, the management board, the supervisory board, the stakeholders and general meeting of shareholders, and financial reporting' (Corporate Governance Committee, p. 8, 2003).

As stated: supervisory boards' responsibility is to secure long-term stakeholder value by monitoring and advising the management board (Groenewald, 2005; Monitoring Commissie, 2016). Simultaneously, a supervisory board does not have any authority over how the management board is operating as members of the supervisory board are non-executives. To fulfil their responsibility, monitoring, and advising the management board, how are supervisory boards informed about the digital transformation, and from what perspective do supervisory boards' evaluate on this development?

1.6 Outline of the thesis

This study will first discuss relevant literature by means of a theoretical framework, explaining the key concepts. The conceptual framework between the key concepts within this study follows from the conceptual framework that is elaborated in chapter 2. In Chapter 3, the operational framework, choices made on methodological considerations, and argumentations on these choices, will be discussed. Chapter 4 consists of the data collection and analysis of the research and will elaborate on an overview of the actual findings. This will be followed by the conclusion and discussion in chapter 5. In this chapter, the researcher aims to answer the main research question by giving a broad interpretation of the results and its implications. After this conclusion, the limitations of the research will be discussed. The practical recommendations and recommendations for suitable further research will be provided and elaborated as well.

Chapter 2: Theoretical framework

With regard to the research question of this study *''How are supervisory boards informed about the digital transformation and from what perspective do supervisory boards' evaluate on this development?''* this chapter serves as a theoretical outline of the key concepts in this study. Addressing the main focus, an elaboration will be given on why the digital transformation is relevant for a supervisory board in 2.1, and in 2.1.1 an outline regarding organizing this digital transformation is addressed. Subsequently, the role of Dutch supervisory boards will be addressed in 2.2. Paragraph 2.3 elaborates on perspective theories about internal governance and its occasion. In 2.4 stakeholder theories regarding governance are elaborated. All theoretical concepts and theories that have been addressed are brought together, leading to the conceptual model in 2.5.

2.1 The digital Transformation

Embracing characteristics of the digital era has become critical to the success of any business. Consequently, almost every major company is in some phase of the digital transformation. Frequently named technologies as big data, artificial intelligence (AI), elastic cloud computing (the cloud), and the Internet of Things (IoT) will irreversible become established (Siebel, 2017). Digital business transformations are disrupting businesses by breaking down barriers. Therefore, organizations can create new products, services, and find more efficient ways of doing business by means of transforming processes and changing business models. This development includes changes to and implications for products, services, and business models as a whole. The consequence is that organizations nowadays combine new and innovative ways of organizing the relationship between demand and supply. As a result, entire business models can be reshaped or replaced, thanks to digital technologies (Brousseau & Penard, 2007; Matt et al., 2015; Schwertner 2017; Shaughnessy, 2018). A firm's business model is structured out of patterns of interactions and exchanges in a complex network of stakeholders. The information that arises from these relations serves to broadly define the nature of a firm's business model. Utilizing allocating various costs and revenues streams so that the production and exchange of goods or services become viable, the organizations become sustainable based on the income it generates (Brousseau & Penard., 2007; Haslam et al., 2012). Christensen, Kagermann, and Johnson (2008) developed a more specific definition of a business model and elaborated four unique elements. They distinguished profit formula (assets, fixed cost-structure and the margins to cover them),

processes (ways of working together to address recurrent tasks consistently, resources (people, technology, facilities, equipment and cash to deliver value proposition) and value proposition (a product that helps customers do more effectively conveniently and affordably). The study of Al-Debi et al. (2008) stated that business models nowadays are shifting from a traditional model acting in a stable environment with low levels of competition and high certainty into a digital model operating in a environment with high levels of competition and uncertainty. If organizations want to adapt to the unique challenges of a tech-driven global economy by embracing business models, it forces companies to rethink their structure, existing regulatory models, corporate governance, and internal self-regulation (Fenwick et al., 2019; Tiatsis et al., 2019). It is, therefore, important that supervisory boards have access to substantive knowledge of products, product cycles, and the continuous innovation in digitalization, preferably present among one or more board members (Vermeulen, 2015).

2.1.1 Organizing Digital Transformation

As in a digitally intensive world, where digital platforms are enabling cross-boundary industry disruptions, firms operate in business ecosystems that are intricately intertwined such that the new form of digital business strategy cannot be conceived independently of they 'do business' and organize and conduct exchanges in the business ecosystem as a whole, consisting of alliances, partnerships, customers, competitors, and stakeholders. Therefore, the digital transformation brings multiple tensions between competing for logic, needs, and goals of the organization its many stakeholders (Amit & Zott, 2001; Boland & Collopy, 2004; Bharadwaj et al., 2006). Proposing that the structure and process of an organization must fit its context if it is to survive or be effective, organizational performance depends on the fit between organizational context and structure (Drazin & Van de Ven, 1985). A responsibility of supervisory boards is, according to the Dutch corporate governance code, weighing up the interests of multiple partiers involved around the long-term alliance around the company (Corporate Governance Committee, 2003). But, in corporate governance, a lot is unknown on what the digital transformation means for the future of an individual business and business regulation. This can be considered a very crucial concern because jurisdictions that get corporate governance law right stand to benefit enormously (Fenwick, McCahery & Vermeulen). The digital transformation calls for active governance by the supervisory board. But what do organizations need to do to get ahead of the forces for change in the digital age? To deal with the far-reaching consequences, from a holistic kind of perspective, governance

by means of a pro-active approach on leadership, and acknowledgement of the implication of different stakeholders (affected due to transformation) related to organizational change is needed (Matt et al., 2015). But what theoretical perspective do supervisory board members embrace in order to successfully guide the organization they serve through times of digital disruption regarding their stakeholders? In other words: how are the supervisory boards' evaluation and perspective on this development structured?

2.2 Position and role of a supervisory board in the Netherlands

Concerning corporate structures and internal governance, two main models can be distinguished: a one-tier model and a two-tier model. The two-tier model is mainly used in Northwestern Europe and can be found in countries such as The Netherlands, Germany, Denmark, and Finland. Although some vast multinational companies, which are listed on the Dutch stock exchange (AEX) but mainly operate outside the Netherlands (such as Shell, Unilever and, ArcelorMittal) use a one-tier board, the two-tier board is dominant in the Netherlands. In most of the other European countries, the monistic one-tier model is prevailing (Goodijk, 2008; Peij & Brandjes, 2012). Contrary to the one-tier board, the two-tier board is characterized by the formal separation on strategic decision-management, executed by the executive board of directors, and decision-control, which is the responsibility of the supervisory board. The supervisory board consists solely of non-executive members and is called 'Raad van Commissarissen' for market, and thus profit-organizations, and 'Raad van Toezicht' for non-for-profit organizations such as NGO's or governmental (healthcare) institutes (Cools & Winter, 2013; Groenewald, 2005; Maassen & Van Den Bosch, 1999;). The supervisory board, an independent board of non-executives that supervises the management board is a specific form of internal supervision that is typically seen in Rhineland countries, including the Netherlands. The main tasks of the supervisory board are monitoring and advising the board of directors (Raad van Bestuur). Furthermore, the supervisory board is charged with appointing and, when necessary, dismissing members of the board of directors (Cools & Winter, 2013; Maassen & Van Den Bosch, 1999).

2.3 Perspectives on internal governance: coalition theory

In Rhinelandic Northwestern Europe, concerning The Netherlands, organizations on a macro level are seen as a focused partnership in which long-term value creation is key. This

network-oriented approach aims at relationships and mutual benefit. Unlike the Anglo-Saxon shareholder approach, focusing on market monitoring and competition, the Northwest European Rhineland model executes a stakeholder approach based on collaboration. This focuses on the involvement of multiple parties and weighing up various interests. As a consequence, there is a need for balancing and controlling relationships in which a lot of consultation takes place. Hence countervailing power is achieved through a restriction of power in the board by means of the supervisory board consisting of non-executives. Moreover, in the Netherlands, the 'Poldermodel' can be seen as an example of the governance culture. This model is a typically Dutch style of policymaking in the social and economic sphere: consultation-intensive and consensus-seeking (De Vries, 2014; Goodijk, 2008; Hooghiemstra & van Ees, 2011).

The existence of this Rhinelandic context is in line with the 'internal coalitions' as stated by Mintzberg. Matheson (2009) elaborates and interpret the thoughts of leading management thinker Mintzberg (1983), and argues that both an external coalition and an internal coalition are sources of influence and power in organizational decision making. Both coalitions can be seen as separate groups of stakeholders. The internal coalition consists of groups and individuals who make major time commitments to the organization. The internal coalition (IC) gets organizational business done, and through its efforts goals emerge because the internal coalition consists of the top management, middle and line managers, operators of the operating core, planning and control staff, and support staff such as accountants, planners, HR specialists and legal staff (Mintzberg, 1983). In this study, employee organizations are seen as an internal coalition, as it is an important element and party in 'poldermodel' (De Vries, 2014). But, are supervisors internal servants of the employees and the board of directors, or are they highly effective and independent bodies securing the long-term interest of all stakeholders?

From the end of the last century, the Rhinelandic model has come under increasing influence and pressure from the Anglo-Saxon western wind. Anglo-Saxon values such as orientation on the free market, short term shareholder value, control and, accountability have become more dominant in Europe and the Netherlands. Therefore, this one-sided external Anglo-Saxon approach has led to undesirable instability, and a new balance is being sought (Goodijk, 2009). Simultaneously, increasing societal demand can be felt to focus on long-term value for all stakeholders involved (Strikwerda, 2018). The increasing influence of the Anglo-Saxon shareholder model towards the Rhineland stakeholder model in the Netherlands forced

organizations to respond and comply with self-regulatory initiatives by means of Corporate Governance Codes (stated and elaborated in appendix I).

Governance problems in Anglo-Saxon countries are mainly being handled with harshness through the introduction of detailed regulations and legal liability by means of rule-based solutions. Contrary, Rhinelandic European countries as, for instance, the Netherlands, may first of all try to tackle the problems first and foremost with corporate governance codes (Aguilera & Cuervo-Cazurra, 2004; Goodijk, 2008. p 26; Haxhi and Aguilera, 2014). The above-mentioned Anglo-Saxon contextual background can be typified with Mintzberg's (1983) 'external coalitions'. The external coalition (EC) is the total set of societal groups and individuals who, from outside the organization, compete for influence over it. These external coalitions consist of owners (if they are not actively involved in management, like private equity funds) trading partners (suppliers and customers), competitors and, various a subset of the public at large, which reflect current social issues such as NGO's, and public and private organizations emphasizing on creating responsible societal value. They, contrary to the Rhinelandic consensus-seeking approach, mostly individually exert influence over the decisions and activities of those who are running the organization employing social norms, specific (legal and formal) constraints, pressure campaigns, direct operational controls, and membership on the board of directors (Mintzberg, 1983). It is to be believed that dominant external actors concerning the organization play a major role in imposing the type of supervision mechanism that will maintain control of the organization. Therefore, three forms of external coalitions are proposed and distinguished by Mintzberg (1983): the dominated EC, in which most power is held by an individual or a group whose members act jointly. Secondly, the divided EC, where most of the power is shared by some various, but key individuals or groups and the organization is faced with a concomitant set of conflicting demands. Thirdly, the passive EC, in which power is dispersed on low levels across a large number of individuals or groups and, therefore, reverts power to the internal coalition (Beatriz & Marc, 2011; Peij, 2005). As awareness involves the interpretation of the environment and the development of consistent patterns in streams of organizational decisions to deal with environmental complexity (Mintzberg, 1983), these contrary movements in the socioeconomic context reveal a complex challenge for supervisory boards. Considering that the supervisory should secure long-term stakeholder value (Monitoring Commissie, 2016), and stakeholders are seen as both the internal and external coalition, we can argue that the supervisory board is responsible for respecting both interests. Despite the fact that it is not a fully clear-cut, the above-mentioned theoretical perspectives share common ground and can,

therefore, somehow be integrated. Stated by Mintzberg (1983), influence and power in organizational decision making are subject to the characteristics of the internal and external coalition. The internal and external coalition are respectively in line with the European Rhinelandic model and the Anglo-Saxon model. Due to the growing Anglo-Saxon influence, the supervisory board might have made a shift towards a more external coalition perspective.

2.4 Stakeholder and governance theories

Stakeholder theory is mainly defined as any group or individual who can affect or is affected by the achievement of the organization's objectives. Stakeholder theorists suggest that organizations have a network of relationships to serve interests in, which include the suppliers, employees and business partners such as governments, society and customers (Freeman, 1984, 1999). As suggested by Clarkson (1995) organizations can, therefore, be seen as systems in which stakeholders are situated, and the purpose of the organization is to create wealth for these stakeholders. Theoretical models and concepts on stakeholder theory and their relation with corporate governance perceptions consist mostly of two different theories: agency and stewardship. Both theories describe the patterns and motives of the behavior of managers and members of supervisory boards (Glinkowska & Kaczmarek, 2015; L'huillier, 2014).

The stewardship theory is based on human relations and organizational theory to facilitate and empower structures and departs from a corporate social responsibility perspective that directors are trustees of all stakeholders of the firm. Balancing the interests of many diverse interest groups is a challenge as consensus has to be sought continuously. The key motivator for both boards is to get satisfaction from executing the purpose of their function in an appropriate way (Davis, Schoorman & Donaldson, 1997). In this theory, it is not likely that there are regular issues or conflicts between the boards and share- and stakeholders, because financial incentives are not the key motivator for members of the boards and the advisory and consultation functioning is the most important role of a supervisory board. Moreover, there is no reason for the supervisory board to implement costly motivators as satisfactory intrinsic remuneration the main motivator (Hung, 1998; Mason, Kirkbride & Bryde, 2007). In stewardship theory, higher-level needs (such as progress, achievements, self-actualization) are the source of motivation. Key characteristics of the stewardship theory are, therefore based on mutual-trust, engagement, collectivism, and low power distance (Davis et al., 1997; Maassen, 1999). Stewardship theory has a strong relation

with organizational psychology and sociology: in, for instance, McGregor's Theory Y (1960), which suggests that individuals want to work, achieve organizational goals and take (social) responsibility. Stewardship theory focuses on pro-organizational behavior and states that the key motivating factor for employees is getting satisfaction from a job well done. Thus, their behavior is pro-organizational and in line with the organization's interests (Muth & Donaldson, 1998). Linking supervisory boards' purpose to stewardship theory, the primary purpose of the supervisory board in relation to the management board is to lend support, give advice, share experience and skills (Davis et al., 1997; Glinkowska & Kaczmarek, 2015). Stewardship can be comparable embedded in corporate governance systems in Rhinelandic Europe. Stating that few conflicts of interests can, in some way, be present, it emphasizes that supervisory board members will prioritize and take care of the interests of the organization as a whole, in a network of stakeholders, as their ultimate objective.

Contrary, the overarching rationale of agency is the theoretical perspective that in any given situation organizational agents may not act to maximize shareholder returns contrary to their self-interest unless appropriate governance structures are put in place to protect the interests of shareholders (Jensen & Mecling, 1976). Therefore, the agency framework states that corporate governance aims at creating and monitoring the mechanisms that are put in place by shareholders to control corporate insiders to maximize shareholder wealth by reducing agency loss (L'huillier, 2014). Jensen and Meckling (1976) argued that the agency relationship could be seen as an opportunistic contract under which on ore more individuals engage other individuals to perform some service on their behalf: self-interest. Therefore, motivators are solely financial and based on extrinsic motivation. These incentives can be assigned trough by, for instance, a promise of greater pay as motivating factors. The amount and height of these incentives should, therefore, relate to how well the results of decisions serve the interests of shareholders (Bonazzi & Sardar, 2007; Eisenhardt, 1989; Fama & Jensen 1983). Agency theory relates to McGregor's theory X (1960), whereas individuals dislike work, must be coerced, controlled, and threatened with punishment to get them to put forth adequate effort toward achieving organizational objectives.

Applying agency theory on corporate governance, we can argue that the agency theory has an emphasis on an efficient governance mechanism of the supervisory board over the board of directors by constantly monitoring and controlling activities of the board of directors caused by distrust. The main aim of the supervisory board is to, based on limited trust, act as a monitoring or directing tool in the broad sense of the directive for the management board by maximizing the usefulness and allocation of the members of the management board.

Therefore, the supervisory board represents the owners and responds to them as the motivators, utilizing incentives, are solely financial (Eisenhardt, 1989; L'huillier, 2014; Glinkowska & Kaczmarek, 2015). Characteristics of the agency theory, such as control mechanisms, individualism, lack of trust between boards default, and high power distance, relate to the external Anglo-Saxon perspective.

2.3 Theoretical framework

To summarize, in chapter 2, multiple concepts and theories regarding the research question *''How are supervisory boards informed about the digital transformation, and from what perspective do supervisory boards' evaluate on this development?'* are described. Academic literature regarding governance, the position, and the role of the supervisory board, the digital transformation are almost limitless but have barely been studied together yet. Distinguishing the most appropriate and suitable theories regarding the specific topic of this study has, therefore, been an intensive scoping process. I elaborate in this paragraph, by means of an overarching summary, the set of theories to be studied. After elaborating on the Dutch legal context regarding governance, and the digital transformation, two coalitions have been addressed. The first concept holds for the internal coalition whose characteristics are mainly in line with the European Rhineland model. The latter is the external coalition, which can be associated with the Anglo-Saxon concept and its attributes. As a consequence, relevant issues addressed by a coalition might be of influence regarding the scope and awareness of a supervisory board. Furthermore, a tension between both coalitions competes for interest. Regarding the role of governance in a Dutch setting, the two opposing governance perspective approaches of agency and stewardship have been described. Although the concepts are not completely similar, we can argue that the agency perspective in line with the shareholder Anglo-Saxon concept, while stewardship relates more to the stakeholders Rhinelandic European model. The literature found is used as a reference in this study to understand how supervisory boards keep themselves informed about the digital transformation and which certain models can form the supervisory boards' evaluation and perspective on this development. These concepts, theories and assumptions formed the foundation for the semi-structured interviews as stated in appendix III and IV.

	Stewardship I	Agency II
Internal Coalition I	1.1 Consensus perspective	1.2 Self interest perspective
External Coalition II	2.1 Societal plurality stakeholder perspective	2.2 Shareholder perspective

Figure I: Conceptual framework

Chapter 3: Methodology

This chapter is executed to elaborate and explain the methodological considerations and decisions made in this study. An outline will be given on the approach of the research and the path of data gathering. Furthermore, the type of data analysis, quality of the methods, and ethics in this study will be addressed.

3.1 Approach

To gain insight into the awareness and evaluation of the digital transformation, and its implications for organizational design, from a supervisory boards' perspective, a qualitative research design is being used as an aim for interpreting the data available in the field. This research design, as operationalized in figure II, have been executed to answer the main research question: *'How are supervisory boards informed about the digital transformation, and from what perspective do supervisory boards' evaluate on this development?'*
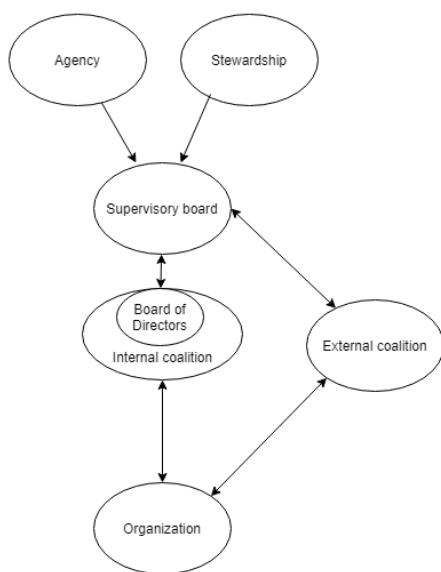
Figure II: Operational framework

To accomplish the aim of the study, an exploratory research approach has been executed, which tends to tackle problems or phenomena on which little previous research has been conducted. Exploratory research is not intended to provide full conclusive evidence but guides the researcher to gain a better understanding of the problem and the actual situation. Therefore, the researcher ought to be willing to change the direction as a result of the revelation of new data and new insights. Exploratory research can help the researcher in

determining the research design, methodology, and data collection method to gain an in-depth understanding of a specific phenomenon (Brown, 2006; Saunders, Lewis & Tornhill, 2012; Singh, 2007; Symon & Cassel, 2012). Qualitative methodologies aim to develop concepts to which help to understand phenomena in their natural context by collecting, organizing, and interpreting data by, for instance, interviews. The concepts to conduct research on emphasizes in qualitative methods on meanings, experiences, and perspectives of the respondents. Qualitative methods might be quiet challenging, as the concepts in which a researcher interprets what he/she observes are often developed by the researcher him/her selves by alternating data collection and data analysis (Boeije, 2014; Boeije & Bleijenberg, 2019). This form of research gives me the opportunity to find out if, and if so, how supervisory boards are aware of the digital transformation and what this implicates for the organizational design of the company supervisory boards serve. Moreover, this study its acknowledgements aims at building theories about the drivers behind the perspectives of supervisory boards. As respondents can elaborate on their (un)consciously perceptions and decisions, this study is highly relevant to build a new comprehensive field of knowledge. The strategy which is used in order to execute the above-mentioned research goal consists of data gathering by means of a document analysis followed by semi-structured interviews '' Like many other methods in qualitative research, document analysis requires that data be examined and interpreted to elicit meaning, gain understanding, and develop empirical knowledge'' (Bowen, 2009, p. 1). As such a wide array of options, data diversity provides the main strength to the method (Scott, 1990, p.195). Document analysis is often used along with other research methods as a means of confirmation, or when used with an accompanying survey as triangulation, and is to be named as an 'assorted analysis'. In this method, secondary analysis of qualitative data is combined with additional primary research and or documentary analysis of relevant materials, whereas triangulation is defined by Denzin (1970, p 291) as: 'the combination of methodologies in the study of the same phenomenon'. The main methodological advantage is that information collected through multiple methods. Therefore, the researcher gets a better understanding of the subject and social subsystem that is subject to the research. Consequetly, it enables the researcher to corroborate and compare findings; this reduces the impact of biases that can occur in a single study (Bowen, 2009, p. 2). In this study, the document analysis, which consists of skimming, reading, and interpretation (Bowen, 2009), is executed on annual reports of five organizations in the Netherlands. These annual reports hail from multiple listed and non-listed companies, and for-profit and not-for-profit organizations. In the annual reports, as elaborated in chapter 2, there is a chapter dedicated to corporate

governance as regulated by law. In the context of this research, the document analysis focused on the digital transformation related to internal governance as executed by the supervisory board, which is elaborated in annual reports of organizations. Furthermore, indirect and direct information streams towards members of supervisory boards have been studied. This consists of, for example, information's of masterclasses for supervisory boards by knowledge institutes for board members, supervisory boards associations, and professional literature and media coverage which can be found on LexisNexis. Also, physical documents will be used, for example, the Dutch management magazine for boardrooms: SCOPE has been used in the data analysis.

Previous secondary studies, with regard to supervisory boards and organizations in general in relation to the digital transformation, have been part of the document analysis in order to sustain a preliminary understanding of the topic and its implications. The document analysis has been conducted before the semi-structured interviews were executed. This because the document analysis provided data and insights in the specific field of interest the researcher and the respondents operate. Therefore, documents provided background information that can help the researcher to understand and indicate conditions that may touch upon the phenomenon under investigation. Documents can be labelled objective and therefore add value to the more subjective interviews (Pennings, 1973). Furthermore, the information contained in documents gives the researcher a better understanding and, therefore, might suggest some questions that need to be asked in the interviews as a follow-up part of the research (Bowen, 2009, p. 3). In addition, documents can provide some evidence which allows the researcher to build a richer picture, with regard to the understanding the point of view of the topic and data retrieved from respondents of the interview, than solely can be obtained by interviews alone. Another big contribution is that documents can guide the researcher in conducting cross-check findings in other sources on, for instance, insights by findings documented by other authors (Myers, 2013).

Subsequently, semi-structured are held on 13 supervisory board members, seen as key informants, across different types of firms in multiple industries across organizations in The Netherlands. These organization' supervisory board members have been selected out of the document analysis and the network of the researcher and his supervisor and will be based on the fact that they show interesting (opposing) views on the topic of this study. Moreover, three experts, which are consults on governance in relation with the digital transformation, have been interviewed to get a deeper insight on the topic and to reveal opposing and corresponding thoughts as these experts do approach the digital transformation and its

implication for supervisory boards, as non or former supervisory board members. Both interviews have provided useful information because the researcher intended to explore a specific topic of interest, in-depth, or gain insights into thoughts or behavior (Boyce & Neal, 2006). Despite that semi-structured interviews have some degree of predetermined order, it still have been ensured flexibility in the way issues are addressed by the informant, and other issues have been delved into as well, which were not predetermined formulated by the researcher. Therefore, semi-structured interviews did rely on the interaction between the interviewee and the interviewer (Dunn, 2005; Valentine, Clifford & French, 2004). As there is a discrepancy between awareness, perceiving and acting, the interviews have been helpful in order to emerge certain driving motives leading to identify a certain theoretical perception of supervisory board members. As research into the topic addressed is limited, the researcher assumed that existing literature and knowledge did not cover the researched phenomena as a whole. Therefore, semi-structured interviews gave the possibility to address these concepts.

To ensure consistency and increase validity among the multiple interviews, an interview protocol (appendix III) and interview guide (appendix IV) have been established. Both guided the researcher in organizing, executing, and controlling the interviews to assure they contribute and benefit individually to the study and its results. Although not included in the data analysis as it did not relate to the topic of this study, a meeting on 'supervisory boards in crisis situations', related to the COVID-19 crisis, has been attended. By joining this Wagner meeting (a governance institute) for supervisory board members, I felt, for a moment, one of them. Slowly I started to understand their role, responsibility and functioning. This helped me to get insight into the way supervisory board approach external developments and how they act concerning their organizational role on internal governance.

3.2 Methods of data collection

Firstly, my data collection consists of document analysis of five organizations. Besides, documents such as academic literature, newsletters, studies concerning boards and the digital transformation, and more available information of graduate schools of governance for supervisory board members will be analyzed. The document compositions of five organizations, consisting of the chapter on corporate governance, consists of organizations with multiple different characteristics to sustain that the analysis has been executed in the broad organizational context in the Netherlands. Unfortunately, out of the five executed document analysis of annual reports, only two of the five supervisory boards were willing to participate in this research by means of conducting an interview. The researcher was, as a

consequence, challenged in adapting his research method and method of data collection. The final applied method and sequence of data collection is displayed in figure III. Besides the two organization which participated in the study and were subject to the document analysis, supervisory boards studied do not directly to the annual reports document analysis. This because the annual reports of these supervisory boards were, in most cases solely financial and did not contain information about the supervisory board, nor the relation with the digital transformation. Therefore, an explicit case study research according to the rules as established by Eisenhardt, was not applicable in this study. Although to develop theory, about the different theoretical stakeholder perspectives as mentioned before from case studies, the researcher made use of some elements of a method provided by Eisenhardt (1989) in combination with deductive context mapping. The operationalization, as stated in figure I, guided the researcher in finding opposing theoretical perspectives. Therefore, supervisory board members with opposing outcomes have been distinguished. Furthermore, elements of the Eisenhardt method such as: give a definition of the research question and prior constructs, and forming the theoretical framework (chapter 2), protocoling the conceptual framework, select cases and execute methodology considerations and validation (chapter 3), entering the field, execute research and analyze data in cases, (chapter 4), relate back to theory, give practical and theoretical contributions (enfolding literature), give recommendations for further research (e.g. by forming a hypothesis, chapter 5) have been executed.

Part 1: Document analysis		*A complete overview of the documents studied can be requested.	
Data collection method		**Source**	
Document analysis		Annual report - Organization A	
Document analysis		Annual report - Organization B	
Document analysis		Annual report - Organization C	
Document analysis		Annual report - Organization D	
Document analysis		Annual report - Organization E	
Document analysis		Dutch Corporate Governance Code review	
Document analysis		Secondary surveys, academic papers, newspapers, articles, Dutch corporate governance code.	
Document analysis		Information on supervisory board member masterclasses and schools, supervisory board cooperation organizations	
Document analysis		Management magazine with regard to the digital transformation perceived in boardrooms	
Part 2: Interviews			
Mentioned as	**Document analysis**	**Supervisor of organization with industry characteristics:**	**Regular profession**
Participant 1		Aerospace research institute	Multiple executive functions
Participant 2		Student housing association mainly operating in Randstad	Committee member for multiple ministries
Participant 3		Regional intermediate vocational education organization	IT consultant
Participant 4		Cultural concert and congress organization	Consultant, columnist Dutch financial newspaper

Participant 5		Agricultural food producer	Entrepreneur
Participant 6		Elderly (health) care organization	University IT Professor, IT consultant
Participant 7	Organization C	Supermarket retailer	Former Vice President of multiple organizations
Participant 8	Organization B	University healthcare center (hospital and academic research)	Corporate secretary
Participant 9		Housing associating in Southern Netherlands	MBA lecturer and IoT consultant
Participant 10		Population research on diseases center	CIO multiple hospitals
Participant 11		Childcare organization	Ad interim financial controller and consultant
Participant 12		Student housing association operating in Eastern Netherlands	Policy officer regional security center
Participant 13		International trading organization	Change consultant
Expert 1		Former supervisor and member of workgroup digitalization of a housing association	Director IT and innovation governmental buyers cooperation
Expert 2		Lecturer and consultant for supervisory board members and associations on governance related to digitalization	CIO multinational wholesaler, Governance lecturer
Expert 3		Consultant and author for supervisory board members ad association on governance related to digitalization	(Digi) Supervisor in multiple organizations and IT consultant.

Figure III: Sources of data collection

3.3 Data analysis

All information of the document analysis and interviews have been analyzed with ATLAS.TI, software specialized in user-, and, therefore, process friendly analyzing qualitative data. The data have been analyzed in three steps, as elaborated in the qualitative theory of Bleijenberg (2013). Firstly, all document transcripts were read to get an overall idea of the reasoning and to identify a broad pattern in the documents. This abled the researcher to modify further and sharpen the setup of the semi-structured interviews. Secondly, the document analysis and interviews have been open coded and summarized in findings per document and on the documents of supervisory board members who have been interviewed. Thirdly, the axial coding process merged several open codes into a smaller number of more overarching codes. Fourthly, In addition to the use of methodological elements from the Eisenhardt method, the Context Mapping method has been used in this research. Because the knowledge of a designer of any product, service, and in business administration, the organizational structure, needs to go further than solely (technical) details. It is to be argued that, in an organizational design, the 'living' conditions for working, communicating, and cooperating are essential elements to

be taken into account. The method of Context Mapping (Sleeswijk Visser, 2009) was prior developed to create a worthwhile documentation for designers, initial in the technical domain, in order to meet the needs for a broad empathic understanding of an individual end-user. With regard to this study, the method assisted the researcher in obtaining a wide variety of insights on a specific context regarding the needs of an individual end-user: the researcher. Therefore, context mapping, in this case, has been be applied for an organizational setting.

Context Mapping , a qualitative approach, comprises various steps. Initial, the methods sequential starts with, the gathering of relevant data (document analysis and interviews), interaction with the users (both the interviews with supervisory boards and experts), (c) reflection on the transcript of the interaction (with the thesis circle, consisting of the supervisor and one student), and (d) communicating the choices with associated stakeholders (the results of this research will be shared with the participants). The Radboud University Business Administration ARM-course (2019/2020 introduced Context Mapping in their lectures. Indicated as helpful and relevant, one interview has been analyzed according to the principles of Context Mapping. The main reason for executing this applicable and worthwhile method, was to ensure intersubjectivity with regard to the structuring in the qualitative cognitive process of analysis. Applying it on this research, above-mentioned step c has been executed. A team of three persons out of the academic field of organizational design have studied the whole transcript of one interview. All participants filled out the statement card (a worksheet, which has been attached to appendix VII) with most applicable and essential quotes and their associated meaning as noticed by every individual. Secondly, the participants in the team meeting exchanged their subsequent statement cards. The method guides, by means of it applicable structure, intersubjective support in the qualitative process of analysis. Lastly, the coding of the transcripts were reviewed and modifications have been executed as the researcher starts to get more and more insight into the phenomenon under investigation. Although the analysis technique was mostly based on theoretical concepts, described in chapter 2 and operationalized in figure II, the researcher abled himself to select several emerged concepts which were not included in the initial code book. The researcher deleted some codes which were not applicable because they were not found in the data, and, therefore, were deleted from the initial codebook. As a consequence, the final codebook, including composed example codes by means of quotes, has been attached in appendix VI.

3.4 Quality of the methods used

To assess the quality of scientific studies, multiple criteria have been taken into account in qualitative research. In this study, the quality of credibility, dependability, transferability, and confirmability have been assessed (Symon & Cassel, 2012). As there are many authors with different views regarding quality (assessment) in qualitative research, I would like to use and refer to the qualitative research school and criteria of Symon & Cassel. Collaborating together, the authors gained a total of more than 2500 citations on their different academic papers and books (started in 1994) on qualitative organizational management research. Moreover, the authors are still developing the academic field of knowledge on qualitative by continuously publishing new academic literature on this topic. When documentary evidence can be combined with data from interviews and observation, it minimizes bias and establishes a higher degree of credibility. Furthermore, a qualitative study can be seen as credible when the obtained data is processed truthfully according to the participants (Bowen, 2009; Symon & Cassel, 2012).

In this study, I tried to ensure credibility by asking confirming questions frequently. For instance, when a certain concept was the point of discussion. At the end of the interview, I asked if we have discussed everything the respondent intended to discuss in the governmental role of a supervisory board and the digital transformation. Secondly, a qualitative study can be regarded as dependable when methodological changes are clearly described and refers to the degree in which future researchers obtain comparable results when repeating the study (Shenton, 2004; Symon & Cassel, 2012). To ensure and increase the dependability of this study, I kept track and record the methodological changes in a research notebook. Furthermore, I left room for any elaborating occurrences on methodological changes and considerations in this chapter and the concluding chapter (chapter 5) as a reflection and evaluation. On an overarching outline, I have included some comments in the discussion chapter of this study. Thirdly, transferability (also known as generalizability) aims at providing detailed information about the study. It refers to the degree to which the outcomes and findings of a study are applicable to a larger population. The reader has to judge and determine whether the results are relevant to other contexts as well (Symon & Cassel, 2012; Bleijenberg, 2015). The findings of qualitative research are subject to their environment. Therefore, it decreases the applicability of the findings to other contexts (Shenton, 2004). The researcher provided contextual foundations to aim for a better interpretation of the outcomes in chapter 5. Finally, to achieve confirmability, it is important to clearly show the data sources and the way data has been gathered and processed into the publicly presented findings

(Symon & Cassel, 2012). To assure confirmability, I tried to accurately describe a detailed account of the analysis process. This gives the reader the possibility to judge and ensure the data, interpretations, and outcomes of the study in of the context (Symon & Cassel, 2012). Purposing this quality criterion, a third person should be able to reproduce this study.

3.5 Research ethics

In academic research, it is important for the individual researcher to take into account ethics. Therefore, this research considered ethical topics in multiple ways. This paragraph elaborates on how I addressed and executed this concern with integrity. Participants have an essential value and impact in this study. Therefore, the least the researcher can do was to protect the participants in this study. Potential participants had the right to voluntarily accept or decline my request for participation. It was up to the participants themselves to make this decision. I approached potential participants carefully to create trust and transparency about the important aspects of this study. Therefore, I elaborated on the goal and application of the findings. Furthermore, the researcher made sure that participants were served all the necessary information and context of this study. In line with this reasoning, the researcher tried to make very clear what the role and purpose of the researcher and the research were. To ensure this aspect, I frequently asked if everything was clear and if a participant had any questions, notes or suggestions. For instance, prior to the interviews, I asked if it was possible to record the interview. Moreover, I made sure that the participant was aware of the fact that he/she could withdraw from the study at any time. To ensure this aspect, in appendix VIII a protocol regarding informed consent is stated, which I verbally noticed before recording the digital interviews. To ensure the privacy and anonymity of the participants and the organizations, the researcher used pseudonyms. Furthermore, the gathered information, data and additional materials that were used for the research were locked and stalled in the personal cloud server of the researcher. The data and information gathered were careful - and therefore only - shared with the supervisor, second examiner and the thesis circle consisting of one fellow student for educational purposes. Moreover, the records will be deleted after graduating. Highly personal and sensitive content discussed in the interviews was initially and finally not transcribed. As my ethical belief is that most applicable knowledge and information should be available to society as a whole, I provided permission for sharing my thesis on the Radboud Thesis Repository. To fully ensure the integrity and ethical acting of the researcher, I signed the 'Research integrity form' used by Radboud University.

Chapter 4: Findings

The previous chapter described how empirical data were collected. In this chapter, the actual empirical findings are presented. This results chapter consist of three parts. Chapter 4.1 elaborates on the awareness and information regarding a digital transformation as (to be) evaluated by supervisory boards out of the document analysis and accompanying interviews. Secondly, chapter 4.2 through 4.2.3 elaborates on findings on the internal- and external coalition theory perspectives on stakeholders held by supervisory boards with regard to the digital transformation as emerged data out of the interviews are analyzed. Chapter 4.3 to 4.3.3 contains findings about the stewardship and agency theory perspectives held by supervisory boards with regard to the digital transformation as studied by the interviews.

4.1 Awareness and informing on digital transformation in supervisory boards

At the end of 2013 and ever since, the digital transformation has increasingly become a topic of discussion subject to discussion. An example in Dutch management magazine SCOPE marked the start of awareness regarding the digital transformation of back in 2013:

''Anyway: standing still and sleeping through all these developments is not an option at the moment. Set your alarm clock for the digital revolution'' (Management Scope, 2013, April 9).

Results appear that as time progresses, more and more is written about the digital transformation and the role to be served by internal governance concerning the digital transformation. Annual reports of multiple organizations, articles from newspapers, management magazines: a rising trend can be noticed. An expert, who conducted research on the frequency with regard to IT and digitalization-related terms as presented in auditor's reports in the financial statements of companies listed on the main Dutch stock market, supports above-mentioned trend:

'' In our first year of research [2013] 8% of the total findings could be related to IT and digitalization, two years later [2015] it has risen to 31%'' (Expert 1).

Anno 2020, out of the accompanying document analysis executed in this study, an upward trend still can be observed with regard to the frequency of 'digital transformation' and related terms which are addressed in five annual reports of organizations. For example, organization A (publisher and information services company, listed) had a frequency of 47 mentioning's in their annual report in 2014 and rose to 68 mentioning's in their annual report of 2019. Organization B (healthcare, non listed) had a frequency of 12 in their 2014 annual report, which rose to 34 in their 2018 annual report. More important for the research question in this study, the trend towards digitalization has, also reached the supervisory boardroom. This is supported by data from an academic article with regard to the demands of supervisory chairmen's time: out of eleven areas that 184 Dutch supervisory board chairman believe will take more time over the next five years *''ICT/Digitalization''* is on top of the list (University of Groningen, 2018). This underlines that awareness and precedence regarding the importance of the digital transformation are somehow present in supervisory boards. The awareness regarding the digital transformation in supervisory boards is supported by findings in chapters related to the supervisory board in annual reports. For instance, organization B explicit stated in their '*Supervisory vision 2018'* that in the audit committee on finance and business operations a responsibility with regard to their role concerns '*'the application of information and communication technology''* because the organization intends to apply more use of digital technologies, and an innovative future-proof integration of care, education and research to have a significant impact on healthcare, which calls for active involvement of governance. Furthermore, Organization E stated in their annual reports of 2014, 2018 and 2019 that, next to the financial items on the supervisory boards' agenda, non-financial matters also form an important part of the discussions with the management board. This included matters relating to '*'digitalization and innovation''* (Organization E). This organization further extends the priority of the digital transformation, which stated it explicit their annual report of 2017*:*

''Our sector will change more in the next few years than it has done in the previous 30… due to the digitizing''(Organization E, 2018).

Above-mentioned findings in annual reports are supported by a secondary study. This research stated that out of 173 supervisory board members:

''Almost 50% [supervisory boards] *considers digital aspects in their organization as highly important, moreover 28% stated that their organization is fully dependent on digital*

technology… no supervisory board or board member indicates that digital transformation is not relevant to their own organization'' (Nationaal Register, 2018, April 18).

4.2.1 Incorporating digital knowhow: ensuring viability

Besides just acknowledging the digital transformation, it can be argued that individuals who understand the dynamics of this world should be represented in a supervisory board in order to translate the digital implications in their own organizational context. This because the results indicate that supervisor board members who are able to bridge the gap between technologist and digital literacy can make the difference for their organization in order to ensure viability, and therefore for the continuity of the organization: ensuring this is the main responsibility of a supervisory board. But as organizations, and supervisory boards, are engaged in managing their current organization and the legacies of the past, they simultaneously struggle in having the ability or time to look forward with regard to the digital transformation and their stakeholders. Even more, because organizations act or are going to act in the near future in a new organizational field, supervisory boards should have explicit knowledge in this area, as is advocated by multiple sources as the digital strategy cannot be seen separate from the main strategy. For example, stated in an association for supervisory board members:

''The digital transformation is the business strategy. Business is IT, and IT is business.. leading to strategic changes.. having consequences for the competences and culture of the organization'' (Nationaal Register, 2019, May 15).

Simultaneously with the rising awareness of the majority of the boards, supervisory boards should not only acknowledge the digital transformation about their supervisory role for organizations: they should be hyper-aware, as stated in by a financial newspaper.

''In order to actually follow and integrate the digital transformation and its developments in the supervisory board, it is important to develop a type of hyper-awareness… However, this area is still a blind spot for many supervisory boards'' (FD, 2019, June 20).

 The supervisory board should be able to encourage and embrace the ability to properly estimate the impact and dynamics of the digital transformation for the organization they serve:

''*Given the major impact of digitization on the future success or failure of companies, the active awareness and role of supervisory board members with regard to the digital transformation is vital*'' (FD, 2020, February 2020).

That digital knowhow in supervisory boards is vital for organizational viability and, therefore, organizational continuity is not up for debate in the results.

''*A crucial concern in this age of zeros and ones* [binary digital programming language] *because knowledge, vision and leadership in data and technology are essential for organizations… A supervisory board without tech knowledge and experience with data-driven revenue models is outdated and threatens the continuity and viability of organizations*'' (Commissarissen.nl, 2018, December 17).

The OAD Reizen example, a bus travel agency, bankruptcy negatively illustrates how organizational viability can be at stake because the supervisory board was not able to implicate the context and effects of the digital transformation for their organization. Time after time the company responds too late to new developments, such as booking trips via the internet. The supervisory board of OAD had a financial and legal background in an industry that has changed dramatically as a result of digitalization. A lack of vision and poor internal governance: it turned out to be an unfortunate composition (FD, 2014, April 26; Commissarissen.nl, 2018, December 17).

Results show that eight out of 13 supervisory boards stated that they do have enough knowledge and expertise regarding the digital transformation available in their boards in order to guide the organization they supervise in the digital transformation, five boards stated that they do not have the right digital knowledge available. Although organizations and their supervisory boards might have woke up regarding the digital transformation and its implications for organizational viability, secondary research concluded that only 25% of supervisors argued that they do have appropriate knowledge regarding digitalization. Contrary, directors indicate that just 1% of their supervisory board do have the acquired knowledge, and are therefore capable, to judge the digital implications for their organization. Moreover, it is to be argued that supervisory boards overestimate themselves:

''In my opinion, every supervisory board member who says that he or she knows enough about the digital transformation has to take a look in a mirror, because that is utterly dangerous'' (participant 7).

The experts do somehow acknowledge the fact that most supervisory boards do not have the appropriate knowledge to judge the contextual implications of the digital transformation for the organization they serve, and therefore, to fulfil their role properly. Moreover, to overestimating their knowhow the implications of the digital transformation are underestimated. This result is supportively illustrated by expert 2:

'' I have been giving lectures about the digital transformation to 800 supervisory board members now, and I dare to say that at least 95% of them looked at me after five minutes like: holy shit! What is this about?! They are scared about the magnitude: the impact of the digital transformation is much more bigger than they expected, which scares them… when the board of directors do not find an anchor in the supervisory board on this topic, they won't ask advice.. they then just go along which is dangerous'' (Expert 2).

Moreover to the lack of contextual know how as a topic of interest, one expert made the relation between digitalization and pensions:

''I compare it [the contextual know how on digitalization] *to the pension discussion: when the topic ''pension'' is at stake on an average birthday, everyone leaves, well IT and supervisory boards are a bit the same''*(Expert 2).

This statement of the expert is supported by the data that emerged out of interviews with the respondents. A majority of the supervisory board members which participated in this study, besides those who are related to IT and digitalization in their core daily workforce and/or, stated that they do not have the appropriate knowledge to judge the implications of the digital transformation for the organization they supervise on a contextual level:

''I always feel like I do not know enough about it. For my regular job, I see all kinds of organizations, but nevertheless, it is still very limited what I can add [on the digital transformation topic]*. I don't want to be rude, but I know far most of it of all my supervisory board colleagues* [on the digital transformation]*, and that is not much''* (Participant 14).

4.2.2 Steps towards the right direction

Considered as a danger for organizational long-term viability and existence is a monoculture concerning experience, skills and diversity in supervisory boards. This laborious state does not contribute to out of the box thinking, whereas inquisitive supervisory board members can be of enormous value. Therefore full analogue, or more extremely appointed in some articles as digitally illiterate supervisory boards, are considered to be out of date. Emerging out of the data, a frequently stated argument about the aforementioned issue seems to be caused by the (rising) average age of Dutch supervisory board members:

''*The average age in 1990 was 61.5 years. By 2018 it had risen to of 66.5 years.*''

According to the data found, age is overall to be considered as an important influence in supervisory boards. Although it is not always the case that young individuals always have more affinity with digitization, it seems sensible to do something to diversity as well as to the rejuvenation of the supervisory board. This because elderly supervisors, in general, are perceived as more experienced overall but less with regard to modern (digital) developments. These modern seniors ore experience, but relatively young supervisors tend to be hard to find. Supervisory board members without affinity, knowledge and experience regarding the digital transformation might get lost in the digital era and are, therefore, are not able to fulfil their role of internal governance. Moreover, the risk appears when a board of directors do not see any necessity to embrace the digital transformation in their strategy and, moreover, the supervisory board is not able to challenge the board on this topic. This because most supervisory boards are not able to put the development of the digital transformation in the perspective of their own organization.

'They [supervisory board members] *struggle with it very much, they hear and know some elements* [of the digital transformation] *but in order to give all the puzzle pieces a place.. you need context*''(expert 2).

Nowadays, supervisory boards should able to ask the right critical questions about the digital transformation to the board of directors and, moreover, understand the answers given by the board of directors in their organizational context. Although it is commonly accepted and acknowledged that supervisory boards do need to have sufficient financial knowledge to understand the financial reports of a company, especially when a supervisory board member

is also member of the audit committee, but it should, according to the emerged data, be a logical requirement that (at least some) individual board members do also adequate understand the culture, competences, and business models that characterize their organizations which are subject to the digital transformation. IT and digitalization have traditionally been lumped together with finance. Out of the data some respondents stated is often associated with a finance department because there was a lot of financial IT in the beginning of the digital transformation. But, besides just acknowledging and discussing the digital transformation and its implications for organizational objectives and strategy, some supervisory boards took matters into their own hands.

Supervisory boards who are not appropriate informed, and, therefore lack digital knowhow, do inform and source knowledge about the digital transformation by the means of the appointment of digital experts in the supervisory board: the digi-supervisor. Consequently, it is a logical continuation that in several annual reports it was explicitly stated, with regard to the nomination of new supervisory boards members, that the main reason for appointments was based on expertise with regard to the digital transformation. This in order to add information, knowledge and experience to the supervisory board in guiding the organization through the digital transformation. This rising trend intends to explicitly appoint supervisory board members because of his/her knowhow on digitalization. One participant illustrates this development:

'' *Ms. X* [currently member of a supervisory board] *has broad experience in transforming technology-based companies* ''... ''*The supervisory board is pleased to nominate Mr. Y and Ms. Z as new members. Mr. Y gathered in-depth digital and managerial experience. Ms. Z gathered extensive experience in digital transformation. Both will provide valuable insights to the supervisory board of our organization*''.

In these organizations, the indispensable importance with regard to digitization has penetrated the boardroom. It became apparent that supervisory boards should not only be hyper-aware of the digital transformation but also develop a contextual perspective on the implications regarding their role in the organization they serve.

''*In his regular job he is CIO and board executive of a big Dutch tech-company, so he is really an expert. He knows a hundred times more about it* [the digital transformation] *than us, the other board members*''(Participant 5).

This finding is supported by the fact that supervisory board members who stated that they don't have enough knowledge about the digital transformation have the intention to appoint new supervisory board members with explicit digital knowhow in their vacancy profile. Although this is increasingly reflected in the profile of supervisory vacancies, this upwards trend is still relatively in its infancy: rather an exception than a rule.

''A supervisory board has expertise in certain common areas, but you are really, really lucky if you have someone in your supervisory board with knowledge about digitalization'' (expert 3).

''What I do is, I try to gather a community of people who are a supervisor with digitization explicit in their area of interest [the digi-supervisor]. *There are now about 15 of them in the Netherlands, which I know personally''* (expert 1).

Besides or instead of appointing new supervisory board members, current supervisors do attend meetings and read articles in magazines and newspapers about the digital transformation. Some organizations explicit meet to discuss the digital transformation. For example organization C stated in their annual report of 2019 that:

'*'The supervisory board got informed about important digitization and e-business developments in and outside the food retail sector concerning the 'inspiration day digitalization'… we will become more and more data-driven with the aim of better anticipating and meeting the wishes of consumers. The power and impact of data / digitization has therefore to be included in our organization.''*

Currently, multiple masterclasses about the awareness and informing of supervisory board members with regard to the digital revolution are present. This underlines the awareness of the need for good governance with regard to the digital transformation. These masterclasses are according to the data ideally suited to become informed about the digital transformation because they do provide insight into the role that supervisors can play in boosting and controlling the digital transformation. The overarching main core of these masterclasses are about sensing and estimating the strategic impact of the digital transformation, assessing the opportunities and threats by means of mechanisms and structures of a digital transformation

for the organization for now and in the future, and forming an opinion on the effectiveness of the appropriate leadership of the management board in timely anticipation and adequate response to the necessary adjustments to the digital age. Results furthermore show that consultancy and advisory experts can offer and deliver the more deeper knowledge and expertise as demanded by supervisory boards. It is therefore not without reason that:

''Dependence on external expertise is considered as high in supervisory boards as 62% of the supervisory boards stated to be fully depended on external expertise with regard tot the digital transformation'' (Nationaal Register, 2019, March 15).

Above-mentioned approaches do underline the long-term nature of the supervision with regard to the digitization and the urgency to catch up with the digital transformation as awareness and urgency have broadly been addressed and acknowledged by most supervisory boards. Nevertheless self-overestimation, according to documents, commonly appear in supervisory boards: It is arguable that individual supervisory board members should note early warning signals if the individual supervisors, other colleague members of the board, or even the supervisory board as a whole is not able to sustain and fulfil their role for the organization they serve with regard to the digital transformation.

In the development of increasing awareness and to stimulate supervisory boards to acknowledge, embrace and incorporate expertise on the digital transformation as well, the Dutch corporate governance Committee endorsed a suggestion for a revised version on the Corporate Governance Code with regard to the digital transformation in 2016. Although this revision was not fully included in the Corporate Governance Code of 2016, this example patterns the growing tendency about the knowledgeable awareness of the digital transformation in Dutch internal governance.

 ''The committee notes that the emergence of new business models due to technological innovation is influencing the role that supervisory board members should play because they can play an important role in assessing the opportunities and risks that technological innovations can offer which can boost or slow down innovations… therefore it is important that the supervisory board is composed in such a way that at least the necessary affinity and expertise is available with regard to knowledge about technological innovation.'' (Commissarissen.nl, 2019, January 1).

4.3 Evaluating the digital transformation

Above-mentioned results relate to the first part of the research question about awareness and ways of informing and incorporating (contextual) knowledge of the digital transformation in supervisory boards. Forthcoming paragraphs elaborate on the results as found in the data on different theoretical perspectives about the digital transformation as evaluated by supervisory boards: this holds for the second part of the research question.

4.3.1 The domestic priority: a solid base for the internal coalition

The analysis of the data from respondents shows that the internal coalition, consisting of all employees and departments in organizations, are seen as a conditional necessity in terms of organizational development, before executing the digital transformation outside their organization. This is supported by multiple supervisory boards. Moreover, an expert stated that the digital transformation is really impactful for the internal organization because digitalization is internally mainly seen as a new way of atomization and, therefore, a precondition in executing the digital transformation properly.

''It is not something that is always is imposed from the outside, but it is more something.. like an own need to optimize business operations before taking any further steps'' (participant 9).

Supervisory boards in this perspective evaluate from an inside-out perspective on the digital transformation. For example, the internal vision and sense of urgency of the board of directors is critical in the start and first-steps of executing a digital strategy according to the respondents. One participant illustrates this inside-out approach:

''First of all, the most important stakeholder is the management and the board of directors. If they do not feel and see the urgency, nothing will happen''(participant 4).

Emerged out of the data from participants, to get the internal organization digital on track is essential for the long term organizational goals. A solid internal base, with the help of optimal digital business operations, could support organizations in further develop and reach their organizational goals with the use of elements of the digital transformation. The implications

of the digital transformation for the internal organization are mostly seen as a prior concern before using elements or applications of the digital transformation for external stakeholders.

'' It takes some work to get it right, but once you get it right.. great! So you should not want to go too fast: if it becomes a great proliferation of apps and systems, then you will eventually get no further: you have to make sure that the base is good'' (participant 15).

''It just makes no sense to have the knowledge, and talk in great depth about fancy new technologies like IoT, 5G, Virtual Reality, Robotics, and make nice plans like when, what I just mentioned, twice a week the digital calendar system is down and that employees, therefore, cannot do their job'' (expert 3).

Therefore, the digital transformation is perceived impactful for employees as it is an utterly necessary precondition for scaling digitization outwards of the organization by means of a fully digital business model. A minority (2) of the supervisory boards in this study do solely favour the internal stakeholders, and therefore, employees of the organization over the external, with regard to the digital transformation. These two participants hold far an extreme internal perspective. They see the digital transformation as more impactful for the internal organization than outside stakeholders.

''They [employees] *should execute a total mind-switch! Really… for everyone, the marketing department, but also the engineers and operational workers, everyone!''* (participant 4).

''The core professionals really know themselves and are much better able to weigh up, what is useful. I would like to notice that those professionals have really thought about it, on what they think is useful to contribute to it [organizational goals]… *If I know they thought about it, yeah great.. regardless of the outcome''* (participant 6).

But simultaneously, halve (6) of the studied supervisory boards explicit stated that without getting the internal organizational, commonly mentioned as employees and the IT-infrastructure they work with, on an adequate level, external failure is lurking.

''Take the administrator… he was used to walking in and out with his own keys. Now there are electronic keys. That may seem like a trifle. But he has to adjust his daily routine. This

applies to all employees. And if they [employees] *don not go along with digitalization, you get in risk of complete failure..''* (participant 2).

4.3.2 Engage with the outside world: an external coalition?

Stakeholders outside the organization, most frequently mentioned as clients and customers, are perceived as most important by nine supervisory boards. The digital transformation is, in this perspective, seen as an important continuous development which does not has an certain end. Therefore, the digital transformation is seen as the answer in reaching and serving customers to ensure organizational viability, now and for the future. In the supervisory boars who prioritize external stakeholders, six of them consider internal stakeholders to be very important as well, but on a lower level. A respondent, who also pledged to take into account core employees in the previous section, illustrates this:

''The administrative departments in organizations are conservative, they just do the things they did yesterday and they want to do them again tomorrow… And if you enter as a customer, and it does not fit, it is the fault of the customer, and not [the fault] *of the organization that is close to the customer.. that is wrong! It is the other way around!''* (participant 2).

The remaining four supervisory boards solely prioritize the external stakeholders. That the effects with regard to the digital transformation are perceived as highly important for customers or clients emerges out of the fact that the majority of these supervisory board give explicit examples with regard to digital interactions between organization and customers or partners in their ecosystems. On the one hand, customers do demand digital applications in the interaction between organization and customers. On the other hand, the digital transformation and its applications can ensure higher value exchange for both organization and customer, partners and the whole societal subsystem of their ecosystem.

'Look, everybody is a customer. From the customer itself, the society, and the government..'' *(Participant 3).*

That these four supervisory boards do solely take external stakeholder perspectives, frequently appointed as customers and society as large as their main priority in executing their role, is stated exemplary by a participant:

''The importance of the digital transformation for customers is really many times greater than for the other stakeholders. Because it is are about their data, their service and their digital support'' (participant 14).

These solely external focused supervisory boards feel that they should engage in digital customer demands because going along with developments is sometimes necessary to reach the goals of the organization. Furthermore, engaging in these digital customer demands should not only be formed by the strategizing and missioning and visioning as executed by the board of directors: customers should, according to some of the external respondents, directly be involved in the digital strategy of an organization. An expert and former supervisory board member illustrate, as an outside, on this perspective:

''Your customers do also often have expertise. You can also tap into that knowledge potential! Nowadays, everywhere in your catchment area, people are present who are experts on certain topics. So if you talk with them, you have to be prepared that there is at least someone who knows much about it. Free expertise and easy commitment, two benefits!'' (expert 3).

4.3.3 Questions to ensure trust: emerging stewardship

The results appear that 12 out of 13 supervisory boards emphasize in their role with the board of directors on trust and goal alignment. These supervisory boards do act on a pro-organizational base as the organizational goals related to stakeholder interests are considered as far-most important with regard to the digital transformation. The relation with the board of directors is mainly based on trust. It is not up for debate that supervisory board in this perspective do trust their board of directors. Furthermore, the emerged data shows that most supervisory boards emphasize on the responsibility they have on organizational viability in the digital transformation. This is illustrated by one respondent:

''Well, we [the supervisory board*] are in charge for the continuity of the organization…You just don not want the organization to slip when something happens, preventing that it becomes a big mess''* (Participant 13)

Regarding the internal governance role supervisory boards fulfil, probing questions, mostly control and monitoring questions, are not based on distrust but are seen as a way to challenge the board of directors. These challenging dialogues do support testing to ensure an appropriate way of forming and executing a policy by the board of directors with regard to the digital transformation in organizations. Moreover, the supervisory board tries to get an insight of the current state of the organization and its developments.

''You have to continuously monitor that trust, which is far more than by presenting a bottle of wine at Christmas. Our director takes that [the questioning] *really properly: our director is in control!''* (participant 6).

Enriching questions do help the board of directors in such a way that motives and perspectives with regard to the intended digital policy executing and can be discussed in the meetings between both boards. Both experts and respondents stated that questioning is the way to test trust, as the board of directors should live up the trust every day, over and over, to ensure that the board of directors is 'in control' of manage and run the organization to ensure stakeholder value as stated as a prior goal. Both experts and supervisory board members emphasize on asking questions to start a discussion on goal-related topics between the board of directors and the supervisory board. A participant illustrate on this perspective:

''How are things going? Are there any problems? Are updates [in digital applications] *going well? Yeah we* [the supervisory board] *really try to help and support* [the board of directors] *in all aspects''* (Participant 8)

Supervisory boards feel responsible for the organizational viability and, therefore, emphasize on goal alignment. The digital transformation is seen as an answer to the question of how to reach organizational goals. The digital transformation is not seen as a goal; it is seen as a way to reach the goal. In addition, these supervisory board focus on stakeholder value as a performance criterion in order to measure organizational performances.

''We do not have to be a very fancy organization. We have to make sure that we go through the development that we have planned to go through [the digital transformation] *supports you in reaching organizational goals ... serving our main clients''* (participant 14).

In this perspective, supervisory boards favor the digital transformation, by means of organizational change, in such a way that employees themselves should propose changes initially. This in order to ensure commitment and efficiency and, therefore, digital ways internally (atomization) and externally (business model) are related to organizational goals.

''It is a long-term cultural change, people [employees] *should have a pattern of thought: okay, what could be better, what's next? How can we make it even easier for customers? How can we increase the feeling of quality? How can we make it easier and organize efficient internally to achieve our goals?.. It's about social innovation''* (participant 9).

4.3.4 Tension and distrust: a matter of agency?!

The monitoring and control functioning of the board is seen as an important role with regard to internal governance. Although this indicates a delusion of distrust, this is in most cases (12) not the underlying reason why supervisory board members emphasized on the monitoring and control role. Supervisory boards use the monitoring and control role to ensure that the board of directors has been making the right decisions in executing the intended appropriate policy with regard to the visioning of the digital transformation in the organization. Out of the data, it emerged that supervisors use the monitoring and control role agree on the fact that the board of directors has to execute the strategy and policy.

''The board of directors has plenty of room to hire innovative, smart, young people and come up with the wildest ideas. It has to happen there! After all, therefore, I think the supervisory function is the most important'' (participant 3).

'*'We cannot set the direction, we only assess the policy and the quality of the choices, and we assess whether that serves the purpose of the organization''* (participant 6).

Results show that just the slightest minority of the supervisory boards (1) emphasize on an agency perspective. In this case, the supervisory board sees a lack of information on the agenda between the meeting of the board of directors and the supervisory board with regard to the digital transformation. And even in this case, just two aspects of agency are present: we see a supervisory board which tries to maximize the effectiveness of the board of directors due to distrust, which is present in abundance.

''With all respect, but our organization has not an overflow of good individuals at the top [of the organization]. *Fortunately, it is getting slowly better now…. ''*

There is a lack of trust to the board of directors, but instead of acknowledging this feeling by positioning the role of the employer, as a supervisory board you are able to question if the director is actually the right director, the supervisory board chooses to push the board of directors a bit into the right direction.

''You always have to give the impression that [an idea] *it came from them* [the board of directors] *'wow great, well done, keep going!' You know… that is just the way how to play the game''* (participant 5).

4.3.5 Positioning the supervisory boards

Results show that a majority (12) of the supervisory boards hold for a stewardship perspective. With regard to the coalition theory, mixed results emerge as both solely internal (2) and solely external (4) coalitions are prioritized. A mix of both internal and external perspective (7) has most frequently emerged. The tiniest minority (1) holds for an external agency perspective, as internal agency was not found. Moreover, not all elements of theoretical concepts that relate to agency were found.

	Stewardship	Agency
Internal	**I:** Serving internal stakeholder: all employees **S:** Goal alignment Trust the board of directors Advisory and sparring role Pro organizational behavior Internal stakeholders value (all employees)	**I:** Not found **A:** Not found
Internal + external	Both internal and external coalition perspective. Internal digitalization success (employees and IT-structure) as prior precondition to execute digital transformation external: creating value for customers and society	**E:** Serving external stakeholders: customers and accompanying value chain
External	**E:** Serving external stakeholders: customers and society **S:** Goal alignment Trust the board of directors Advisory and sparring role Pro organizational behavior External stakeholders value (customers and society)	**A:** Distrusting board of directors Maximizing effectiveness of board of directors

Figure IV: Framework found

In addition to the emerged results, as illustrated in figure IV, the analysis of the results encountered some emerging elements that could not be related to the theory as explicitly described in the theoretical framework. The elements, solely mentioned by participants who hold for the stewardship perspective, can be linked to organizational design, development and change, as it comprehends: bottom-up change, commitment, an organizational learning culture, and productivity. The challenge to continue common operations and, simultaneously, explore new digital opportunities has been mentioned as challenging. Both above-mentioned acknowledgements are up for debate in the concluding chapter.

4.4 The importance of the right focus

Even if knowledge is available, supervisory boards might still struggle when they do no to fully understand the effects of digital transformation regarding the contextual implications for the organization they supervise. As emerged out of the data, context on the digital transformation is essential in order to create and sustain appropriate internal governance executed by supervisory boards. The digital developments are perceived as going quite fast which makes it even more complicated to catch up as an organization with the digital transformation. Consequently, an active supervisory board who is able to contextual implicate the effects to their organization is necessary. It is worthwhile when the supervisory board can value the developments and distinguish hypes and relevance in order to stimulate and seize opportunities. This is supported out of the document analysis and from the data from respondents: it has emerged that context is more important than content.

''I am not a whizz-kid, and I don't even understand the content. But I am born in this [digital] *time, so I think it is important to occasionally raise questions and ideas: hey think about this..''* (Participant 4).

Supervisory boards should conceptually knowhow digitalization can be supportive in reaching organizational goals. Supervisory boards should not talk about digitalization in the organization; it is to believed out of the data that they should take about how the organization they serve should actually operate in a digital world.

''I have a nice example for that [the lack of contextual knowhow on digital transformation] *in my lectures: a nice old classic car in a garage. What you see there is a hobby: a lot of*

organization see the digital transformation as a hobby, just for fun. They appoint somebody and call it chief digital or head of digital, and they get some employees and budget and say: 'Well, good luck, we think digitization is very important' That, yeah. no chance, just hopeless!'' (expert 2).

Consequently, two main contextual aspects are seen as highly relevant and, therefore, should frequently be positioned on the agenda of board meetings: chance and risk. This relates to the fact that, in a broad sense, supervisory boards try to relate the digital transformation and its implications in their organizational context and, consequently, its effects on their business. One respondent illustrates his view on this topic:

''The digital world is even stronger than it has ever been. And the one who wins in the digital revolution is the one who can serve the customer… In the past you could win if you were the cheapest or the best. In a digital world you can be the cheapest and the best… the cards are being shuffled over and over'' (participant 7).

But at the same time, because of the fact that supervisory boards do in a broad sense lack digital knowhow, they cannot judge these contextual organizational implications appropriate. A broad consensus was found that that supervisory boards should not have any technological knowhow, but can translate the external world into the organization to be supervised. Supervisory board members do support this:

''To do that [executing internal governance] *you need to understand the context, the main features and the risks of applications. But do you have to be a cloud* [digital application] *expert? Absolutely not''* (participant 3).

''It is an absolutely necessity… That you [the supervisory board] *have to take in to account risk management… It is all about* [organizational] *continuity and safety''* (participant 6)

Executing the right focus is frequently perceived as quite challenging for supervisory boards as they are supposed to fulfil their governance role in an (digital) area which they might not be familiar with.

4.5 The impact of COVID-19 pandemic on the digital transformation

Although the pandemic COVID-19 just started but worsened during the period this study was held, respondents frequently mentioned the impact of this crisis with regard to the digital transformation and its pace and impact. With great respect to those who suffered or still stuffer from the effects of this pandemic, the virus is seen as a blessing in disguise for the digital transformation in organizations, and, more important, the awareness on the role internal governance should fulfil on this topic.

''What we [both boards] *are doing now, is evaluating with employees and clients: what are the pro's* [of the current digital way of working] *which we should keep when the pandemic is over''* (Participant 3).

Due to the COVID-19 pandemic employees work from home regularly, and organizations work more and more digitally where possible, which has implications for internal governance as well as it fastens digital developments internally and externally. Out of the data is to be believed that the digital transformation will be given a more important and better place in internal governance.

''It has a major impact on the individual lives of people and society as a whole. But for digital, it really is a blessing.. If organizations did not operate online before, they immediately started last weeks.. Bottom line is: this just does not go away anymore'' (Expert 1).

Chapter 5: Conclusion and discussion

In this chapter, first the research questions will be answered in paragraph 5.1. Thereafter, paragraph 5.2 elaborates on the limitations. Paragraph 5.3 states the theoretical implications, followed by paragraph 5.4 on the practical implications for supervisory boards and Dutch internal governance in a broad sense. Paragraph 5.5 gives recommendations for further and future research as a conclusion has been given, but some questions emerged as well. Lastly, a critical reflection on the research process is elaborated in paragraph 5.6.

5.1 Conclusion

The objective in the context of this study is analyze a problem of Dutch supervisory boards with a digital transformation of an organization. The research question, as established in paragraph 1.2 *'How are supervisory boards informed about the digital transformation, and from what perspective do supervisory boards' evaluate on this development?'*. To explore the appropriate academic knowledge for answering the research question relevant theory was reviewed and a methodological approach was developed. This has yielded a theoretical and methodological framework, which served for an orderly execution of a document analysis and a series of 16 interviews. 13 interviews were held with supervisory board members, three were held with experts in the field of digital governance.

The findings indicate supervisory boards do acknowledge the development of the digital transformation, and are, therefore, aware of the fact such a digitalization takes place, and might have implications for their organization. From the findings can be concluded that incorporating knowledge, such as experience and expertise with regard to a digital transformation, should be available to all supervisory boards to monitor organizations going through digital developments, and be supportive in reaching goals. But exactly this consciousness is not perceived as enough by the experts. The majority of the supervisors subject to this study stated that their supervisory board is appropriate informed about the digital transformation. But, it is to be believed that, due to overestimation and the fast ongoing digital developments, their knowledge is not perceived as appropriate by experts, and moreover, their board of directors. Consequently, a lack of basic digital knowhow is present. Moreover, on a strategic level, contextual knowhow with regard to digitalization is perceived as difficult: internal governance struggles on a digital transformation in supervisory boards. As a consequence, results show that organizational viability is seen at stake, if organizations do not incorporate elements of the digital transformation or, moreover, are not able to act in a

digitalized world. It is not without reason that supervisory boards are keen on becoming informed on digitalization. Consequently, rising incorporating digital knowhow initiatives are present. Internally in organizations by supervisory boards themselves, and externally by supervisory board associated organizations. Both do emphasize a lot on adequate incorporating these competencies by following digital masterclasses or even appoint (new) supervisors with an explicit profile on digitalization to become digitally informed.

Secondly, according to the coalition theory of Mintzberg (1983) mixed results emerged. The supervisory boards holding for a internal perspective do solely acknowledge all internal employees as key stakeholder. This covers all organizational levels and functional departments. External focused supervisory boards do solely acknowledge customers and society as their key stakeholders. Most supervisory boards, besides the above-mentioned opposing perspectives, emphasize not solely on internal and external perspectives: they do hold for a mixed perspective. These boards acknowledge, and moreover, see their whole internal organization as a prior and necessary concern in succeeding the digital transformation externally by means of their (digital) business model, for serving their external coalition, such as customers and other stakeholders like society. In the mixed perspective, it is to be concluded that both the internal and external coalition, should benefit from the digital transformation, and, therefore, that an inside-out (internal to external) approach is favored.

Thirdly, with regard to the theories that relate to agency and stewardship perspectives, the outcome is clear. According to the results the stewardship perspective, which is in line with Rhinelandic stakeholder model and culture, flourishes. All elements of stewardship theory were apparent in the data. Moreover, supervisory boards unconsciously refer to elements of it, directly and indirectly. For example, trust in the board of directors, goal alignment and organizational development do all serve a higher purpose: serving (both internal and external) stakeholders adequately. Agency, as main perspective with regard to the digital transformation, appears in just one board (accompanied by an external coalition perspective). Overall, the agency perspective appears by just a few elements, such as distrust in the board of directors. Consciously, but on the sly, the supervisory boards referring to agency try, to maximize the effectiveness of the board of directors. One specific agency element, concerning the control and monitoring role, is widely present in boards, is not seen as a means to an end to ensure shareholder value. The purpose of this control element is seen as a way to achieve organizational goals, which is mostly stated as serving customers and society, which are necessary to ensure organizational viability. This agency concept is supportively used in certain stewardship perspectives.

5.2 Limitations

This paragraph will first state limitations and after that evaluates the methodology, as initially elaborated in chapter 3 of the research proposal, as during the progress of this research, two main methodological adjustments were made.

A first limitation relates to the fact that this study did not entail the whole population, or a representative sample, of supervisory boards in the Netherlands. Although the researcher tried to find a diverse sample, by means of supervisory boards with multiple characteristics (the type of industry, and not-for-profit, for-profit) no supervisory boards of stock-listed organizations could have been studied. This might be reasoned due to the fact that in these organizations, a code of silence is present. Board members are forbidden in spreading important internal information as it can influence the stock price and, provides to trade in stocks with foreknowledge. As consequence, it is arguable that the findings might not be applicable and representable for the whole population of supervisory boards in the Netherlands. In order to test the outcomes of this study, further research might be conducted as recommended below.

Secondly, a limitation is the possible presence of bias held by supervisory board members. Supervisory boards members were approached in the own network of the researcher and its supervisory and on LinkedIn. Although the majority of the request tend to have a positive outcome, an interview was being held, and some request were refused. It might be of influence that supervisory boards with more feeling on the topic, and have therefore adequately incorporated knowledge on it in their board, were willing to participate more frequently than boards who struggle on this topic with regard to internal governance.

Thirdly, as it was consciously decided to interview experts, these interviews might have influenced and limited the natural emergent of data of interviews with supervisory board members as I might slightly got a better insight in the strengths of weaknesses of supervisory boards on the governance of digital transformation. These experts have a clear and honest image and perspective on supervisory boards in the digital transformation as they are outsiders and fully independently, but are closely working with board members as they give lectures on digitalization and, sometimes, are consultants for supervisory boards. The interview guide and protocol helped me to steer little as possible in these interviews, although I got better insights as the research process advanced.

During the research process, it became apparent that solely applying a deductive method in the second part of the research question was feasible, but as such interesting data

arose, the analysis held emerged to be abductive hence the data was examined abductive. Abductive aims at combining the best of both worlds of research. It fuses inductive (bottom-up, evaluating) and deductive (top-down, explicating) research, hence compromising existing theories as initial data gathering and analyzation method (Calabrese & Costa, 2015). During the advancement of research, as data emerges, the original existing theories can ben enriched, adapted or even expanded. As stated in the paragraph above, in this study elements of theory O, and elements of the ambidextrous organization (both elaborated in appendix II) emerged in the data analysis which were not initiated to study or to be emerged at first sight. Instead of solely focusing on the existing theories, as a consequence, abduction adds interesting cues, expands and, moreover, enriches this research.

The last limitation relates to, in a broad sense, the word 'right'. The right thing to do is often mentioned in the data, hence in this study. For example, the right focus in chapter 4.4, and in chapter 4 as a whole, participants often refer to aspects on what is right, or not right, or what should in their opinion be the right thing to do. But, what is right? This is to be believed as an ethical concern. As mentioned in the course of Organization and Society, in this master specialization of Business Administration, the golden rule is a classic example of normative ethics: we should do to others what we should want others to do to us. As Polman and Fieser (2017) elaborate on this perspective in their book: 'Discovering right and wrong', multiple ethical perspectives on this concept are elaborated. But in this ethical questioning, supervisory boards might have multiple ethical perspectives on what is actually right. Ethical perspectives such as consequentialism (focusing on the consequence, reason and understanding), deontology (focus on the intention) or virtue ethics (focus on the intentions to actions) (Polman & Fieser, 2017) can be at stake. However, this has not been studied in this research, so the word 'right' remains a bit of a fuzzy concept.

5.3 Theoretical implications

Relating back to the explicit theory, as covered in the theoretical framework (chapter 2), the coalition theory of Mintzberg (1989) distinguished stakeholders as the internal and external coalition, consisting of multiple but mainly individually seen parties. Firstly, the internal coalition consists of managers and employees in all organizational levels, from operating employees working in primary process up to the board of directors as, for example, policymakers. The outcomes of this study relate to a more comprehensive perspective in this theory. Although Mintzberg separated the internal coalition in certain employee groups,

framed on characteristics such as a certain organizational level (e.g. departments), and their role and contribution on reaching organizational goals, data shows that that employees in the organization are frequently mentioned as just the 'employees'. Respondents did barely distinguish and mention certain employees groups as Mintzberg did. Some supervisors do prefer a certain internal coalition, but no pattern was found. Therefore, supervisory boards, in general, do not prefer certain internal coalitions in the organization they supervise. It is to be believed that the implications of the digital transformation for every party in the internal coalition is seen as equally important. Secondly, the parties of the external coalition are solely seen as customers (often also referred to as clients), local and national governments, and society as a whole (sometimes supervisory boards referred to their ecosystem). The analysis did not unfold a pattern with regard to other external parties such as NGO's, suppliers, or other private or public (governmental) organizations. As these external parties were not mentioned, it is to believed that regarding the digital transformation intrinsic motivation is somehow apparent, and seen as appropriate, in taking and attaining corporate social responsibility for their external and internal organization.

The stewardship and agency perspectives, the first more than the latter, are adopted as perspectives by supervisory boards to evaluate the digital transformation for their internal governance role. Almost all elements of the stewardship were apparent in the studied data, but agency elements as elaborated on the chapter 2, besides distrust and maximizing the effectiveness of the board of directors, were not found. For example, focus on shareholder value as performance criteria, extrinsic motivation, economic rationalism were not found as concepts on the agency perspective in evaluating the digital transformation.

Outside of the initial scope of this study, but relevant to this concluding chapter and, therefore, theoretical implications, are elements found in the data which relate to organizational change, or more specific, theory O. Some characteristics of this theory are widely present in the supervisory boards who hold for a stewardship perspective, such as increased productivity, commitment, and emphasizing on organizational culture and learning. Supervisory boards who evaluate the digital transformation from the perspective of theory O, regardless whether they evaluate the digital transformation from the internal, external and mixed coalition perspective, intend on an emergent change to aim at organizational development. The 'right' organizational culture, intern and extern commitment, and efficiency by executing an bottom-up approach, is seen an important requirement to successfully respond to the digital transformation. In addition, elements of an ambidextrous organizational challenge were found. Supervisory boards mentioned tensions arise as organizations should,

pivotal to become aware and prepare for disruptive digital innovations, focus on both exploitation (continue and improve current operations) and exploration (transform their internal and external functioning, i.e. their business model, according to changed digital market conditions). Both do compete for focus and resources, which stresses the organization to be supervised as this may loom strategic renewal. Consequently, such an ambidextrous challenge does make it even more complex for supervisory boards. - Both theoretical concepts of Theory O and the ambidextrous challenge are stated in appendix II and are added to the evolved theoretical outcomes in appendix X. –

As the digital transformation and its contextual implications are already seen as a difficult affair, in a complex ambidextrous situation or market it may be even more difficult to maintain proper internal governance. Supervisory boards should be pay attention to the fact that they should not become two times late.

5.4 Practical implications

The organizational viability is at stake for organizations who struggle to incorporate the digital transformation in their organizations, and therefore, are not able to act in a fast digitalizing world. In this paragraph, the findings of the study are translated into practical recommendations aiming to assist supervisory boards and organizations as a whole. Furthermore, institutions related to governance, and maybe even society at large, can benefit from the from the implications of this study. The outcome of this study contributes to the academic literature on organizational design in multiple ways. First of all, a mind-switch might be necessary. Supervisory boards do acknowledge the digital transformation unambiguously. But, at the same time, a full contextual understanding regarding the organizational implications by supervisory boards seems to lack. Therefore, supervisory boards, individually or with their supervisory board as a whole, are more or less trying to incorporate digital knowledge into their board; Following masterclasses or schedule explicit meetings on the topic digital transformation: further steps towards the right direction, incorporating knowhow on digital transformation, are carefully being taken. The introduction of the digi-supervisor in some organization is one of the most eye-catching developments, as active supervisory boards on the digital transformation incorporate a digital profile, by means of necessary expertise on digitalization in organizations, in their supervisory boards vacancies.

5.4.1 The supervisory board at turn

First, supervisory boards are at turn as they should continuously develop themselves on digital developments. The supervisory board should, now and in the future, critically review their own digital board competences, by meeting necessary 21st century conditions and competences. This can be executed by incorporating, for instance, certain digi-supervisors in the board. Furthermore, the supervisory board members can be informed and educated on digitalization. Moreover, the help from external experts can be supportive and guiding in succeeding an internal board transition. In the current digital era with its fast developing digital technologies with an often a disruptive character, it is a necessary condition for a supervisory board to be tuned in on the digital domain. By meeting above-mentioned contextual conditions, not only the supervisory boards insures themselves to execute appropriate and responsible good governance, it gives also more weight to their functioning: guiding and governing organizations. Concluded by this study, supervisory mainly operate from a stewardship perspective. But some elements from the agency perspective, such as focusing on shareholder value now and in the future to ensure organizational and investment viability, might push supervisory boards more in the right direction to conduct adequate digital governance. Given the fact that most supervisory boards use a stewardship perspective, accomplishing this agency challenge in order to sustain organizational viability, should feel very rewarding.

5.4.2 Learn from colleague supervisory boards

Secondly, in order to maximize above-mentioned invitations, it is suggested that supervisory boards who lack digital contextual knowhow or struggle in incorporating it, may contact other experienced supervisory boards. In order to exchange knowledge on how other supervisory boards successfully incorporated digital knowhow in their supervisory board, these supervisory boards might become more informed on how to execute this again in other, future, cases driven by external developments. 'Ignorant' supervisory boards are likely to benefit from experienced supervisory boards. Moreover, this could be helpful in order to avoid a possible backlog, as it has often been incurred with regard to the digital transformation.

5.4.3 Guided by external institutes

Supervisory boards associations, (commonly organized by type of industry, e.g. housing cooperatives and education institutions) and governance institutes such as specific governance institutions, or universities should emphasize importance of the digital transformation. This can be tapped into by, for instance, organizing certain meetings or programmes with regard to the digital transformation. Fourthly, the Dutch the corporate governance code might be supplemented, by adding a chapter dedicated to the digital transformation and internal governance, as was proposed back in 2016. As supervisory boards might still not feel the urgency to incorporate digital knowledge, and they cannot be forced to become digital savvy, a comply or explain principle might be seen as a big stick. A certain standard element of a code of conduct may suggest having at least one digi-supervisor in a supervisory board. On a more basic level, supervisory boards may include the theme of digitalization in their frequent evaluation rounds. If a supervisory board deviates from this conditional standard, they will have to explain in their annual report why they do not comply with the standards set. This approach is yet already active on, for instance, a governance audit committee on finance. Above-mentioned recommendation can be a solution as supervisory boards are responsible for the continuity of the organization they serve, and in order to do so, should be composed appropriate regarding the digital transformation. Soft-regulation, by the comply or explain principle, can be considered as a strong hand in insuring organizational viability, to sustain the organizational production of value for society.

5.5 Recommendations for further research

The main conclusion of the thesis was a focus on the mixed coalition and stewardship as emerged from the interviews. While stewardship was dominant, agency theorie certainly is on the agenda of a limited number of supervisors. Therefore, the questions arises on the 'why' of the lack of most participants appearances on the agency theory. It is to be questioned if these internal, external and mixed appearances on the stewardship theory, appearances of the external agency theory, and the non-appearance of internal agency perspective are being influenced by certain causes, if so: which causes? I recommend several directions and options which academic research should further reveal knowledge on.

An emerged question with regard to the Dutch culture of internal governance, relates to the Rhinelandic stakeholder model. As most supervisory boards hold for a stewardship perspective, it is to be argued that the Anglo-Saxon western wind been successfully

encountered. But are these appearances deceptive in such a way that quantitative research be should be executed on a bigger population including supervisory boards on stock-listed organizations, where shareholders might have a bigger influence and agency is more present? A quantitative, but anonymous, questionnaire on these supervisory boards can be an interesting way of conducting research and gather knowledge on this specific field.

Secondly, the appeared perspectives on a mixed coalition, and the presence of the stewardship perspective, could be fully initiated by the nature and disruptive characteristics of the digital transformation. It would be interesting to study and reveal if these perspectives and certainly found concepts are also applied in other developments in the socioeconomic context which challenges supervisory boards now and in the future. As a consequence, a study with regard to certain external forces might clarify if supervisory boards incorporate same or other perspectives, as studied in this research, with regard to other socioeconomic developments.

Thirdly, as stated in the previous paragraph on limitations, the sample size and population might be of influence. Therefore, a quantitative study whereas multiple different characteristics such as type of industry, for-profit (Raad van Commissarissen) or not-for-profit (Raad van Toezicht) organization, the (average) age of supervisory board members, age of the organization, and scale of the company by the number of employees or average annual turnover, might be studied in order to get a better understanding if these characteristics do influence the perspective held on the digital transformation by supervisory boards.

5.6 Reflection

Regarding the process of this study, my research strategy and method of data collection was adopted. Initially, the research aimed at investigating if supervisory boards do or not do acknowledge and incorporate the digital transformation in their internal governance structure and, if so, from which theoretical perspective they evaluate this development. This broad research question required a qualitative document analysis combined with quantitative methods by conducting a survey among supervisory boards.

5.6.1 New insights, weakness but wisdom?!

As time and insights progressed, the researcher decided to emphasize more on a specific 'how' research question on a particular problem resulting from the digital transformation. By dividing the research question into two questions, more focus was enforced. Foundation of

this change relates to the prior understanding of the topic to be studied: it was not clear if the digital transformation even was noticed, and acknowledged and, as a consequence, has been incorporated in supervisory boards. Moreover, it was unclear if supervisory boards even held for concepts of the coalition theory, agency theory, and stewardship theory in their perspective. So, instead of quantitative studying relations, and reasons behind, on why certain of these perspectives are held by supervisory boards, it should first become clear if some concepts of these theories are applied on the topic of digital transformation. Therefore, a document analysis combined with interviews seemed to be more appropriate.

5.6.2 Influenced by the pandemic

At first sight, a case study research according to the Eisenhardt method, aiming at studying organizations in greater depts as they show interesting cues, hence seemed appropriate. Conducting this case study method was, influenced due to the COVID-19 pandemic, too challenging in the scope of this study. Organizations reacted reticent when asked for a participation in this case study, as their organizational operations were heavily hit by the pandemic: they intended to fully focus on maintaining their operations under the effects of the pandemic crisis; thus internal governance was. Moreover, three out of five organizations who were studied in greater depth in the document analysis, by analyzing their annual reports, rejected to even participate in interviews. As a consequence, a case study research with academic standards could not be conducted. Above-mentioned setbacks required strong academic skills; the researcher was challenged. The researcher decided to combine document analysis and interviews while emphasizing not solely on case study research. This allowed the researcher to still use methodological elements of the Eisenhardt theory, although a full case study method was not applicable anymore. More and more participants were willing to participate by means of interviews as the research processes advanced. By using the interviews as a means to an end in reaching interesting opposing perspectives, as the models in figure I, figure IV and ultimately in appendix X show, the researcher considered the research as appropriate to academic standards, although this research did not cover the whole population, nor was it a representative sample regarding type of industry and for-profit or not-for-profit companies**.**. It was hence yielding a better and more holistic understanding of the results. Ultimately, due to several methodological and harsh situational effects (the effects of the pandemic) the researcher was frequently challenged on perseverance and academic accuracy, which developed him on a academic, and personal level.

6. References

Achterbergh, J., & Vriens, D. (2019). *Organizational development: designing episodic interventions*. Oxon: Routledge.

Aguilera, R. V., & Cuervo-Cazurra, A. (2004). Codes of good governance worldwide: what is the trigger? *Organization studies, 25*(3), 415-443.

Akkermans, D., Van Ees, H., Hermes, N., Hooghiemstra, R., Van der Laan, G., Postma, T., & Van Witteloostuijn, A. (2007). Corporate governance in the Netherlands: An overview of the application of the Tabaksblat Code in 2004. *Corporate Governance: An International Review*, *15*(6), 1106-1118.

Al-Debei, M. M., El-Haddadeh, R., & Avison, D. (2008). Defining the Business Model in the New World of Digital Business. *Proceedings of the 14th Americas Conference on Information Systems (AMCIS '08), Toronto, Canada, pp*. 1-11.

Amit, R., & Zott, C. (2001). Value creation in e-business. *Strategic management journal, 22*(6-7), 493-520.

Bartley, T. (2007). Institutional emergence in an era of globalization: The rise of transnational private regulation of labor and environmental conditions. *American journal of sociology, 113*(2), 297-351.

Beer, M., & Nohria, N. (2000). Cracking the code of change. *HBR's 10 must reads on change, 78*(3), 133-141.

Boeije, H. (2014). *Analyseren in kwalitatief onderzoek. Denken en doen.* Den Haag: Boom Lemma uitgevers.

Boeije, H., Bleijenbergh, I. (2019). *Analyseren in kwalitatief onderzoek. Denken en doen (3 ed)*. Amsterdam: Boom uitgevers.

Boyce, C., Neale, P. (2006). *Conducting In-depth Interviews: A Guide for Designing and Conducting In-depth Interviews for Evaluation Input*. Watertown, MA: Pathfinder International.

Bestuurderscentrum. (2019). Overzicht Branchespecifieke governance codes of gedragscodes goed bestuur. - Bestuurderscentrum. Retrieved from: https://www.bestuurderscentrum.nl/overzicht-branchespecifieke-governance-codes-gedragscodes-goed-bestuur/. Accessed on March 17th.

Berman, S.J. (2012). Digital Transformation: Opportunities to Create New Business Models. *Strategy & Leadership*, 40(2), 16-24.

Bezemer, P. J., Maassen, G. F., Van den Bosch, F. A., & Volberda, H. W. (2007). Investigating the Development of the Internal and External Service Tasks of Non-executive Directors: the case of the Netherlands (1997–2005). *Corporate Governance: An International Review*, *15*(6), 1119-1129.

Bezemer, P.J, Peij, S.C, Maassen, G.F, & van Halder, H. (2012). The changing role of the supervisory board chairman: The case of the Netherlands (1997-2007). *Journal of Management & Governance*, *16*(1), 37–55.

Bharadwaj, Anandhi & Sawy, Omar & Pavlou, Paul & Venkatraman, N. (2013). Digital Business Strategy: Toward a Next Generation of Insights. *MIS Quarterly: Management Information Systems.* 37. 471-482.

Bleijenberg, I. (2015). *Kwalitatief onderzoek in organisaties* (2 ed)*.* Den Haag: Boom Lemma.

Bonazzi, L., Sardar, I. (2007). Agency theory and corporate governance: a study of the effectiveness of board in their monitoring of the CEO. *Journal of Modeling in Management, Vol. 2 No. 1*, pp. 7-23.

Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative research journal*, *9*(2), 27.

Breuer, H., & Lüdeke-Freund, F. (2017). Values-based network and business model innovation. *International Journal of Innovation Management*, *21*(03).

Brousseau, E. & Penard, T. (2007). The Economics of Digital Business Models: A Framework for Analyzing the Economics of Platforms. *Review of Network Economics*, 6 (2).

Brown, R.B. (2006). *Doing Your Dissertation in Business and Management: The Reality ofResearch and Writing.* London: Sage Publications.

Burnes, B. (2004). Kurt Lewin and the planned approach to change: A re-appraisal. *Journal of Management Studies*, *41*(6), pp. 977–1002.

Calabrese, A. & Costa, R. (2015). Strategic thinking and business innovation: Abduction as cognitive element of leaders' strategizing. *Journal of Engineering and Technology Management, (38)* October–December, pp. 24-36.

Carpenter, M. A., & Westphal, J. D. (2001). The strategic context of external network ties: Examining the impact of director appointments on board involvement in strategic decision making. *Academy of Management journal*, *44*(4), 639-660.

Corporate Governance Committee (2003). The Dutch Corporate Governance Code. *Principles of Good Corporate Governance and Best Practice Provisions.* Retrieved from: https://www.mccg.nl/download/?id=606. Accessed on March 12th 2020.

Christensen, C. M., & Johnson, M. W. (2009). What are Business Models, and how are They Built? *Harvard Business School Module Note,* 610-019.

Christensen, C. M., Johnson, M. W., Kagermann, H. (2008). Reinventing your business model. *Harvard business review*, *86*(12), 57-68.

Christensen, Clayton M., Michael E. Raynor, and Rory McDonald. (2015) What is disruptive innovation. *Harvard business review* 93(12), 44-53.

Christensen, S., & Westenholz, A. (1999). Boards of directors as strategists in an enacted world: the Danish case. *Journal of Management & Governance*, *3*(3), 261-286.

Cools, K. & Winter, J. (2013). External and internal supervision: how to make it work? *Financial supervision in the 21st century.* Berlin Heidelberg: Springer-Verlag

Cuomo, F., Mallin, C., & Zattoni, A. (2016). Corporate governance codes: A review and research agenda. *Corporate governance: an international review*, *24*(3), 222-241.

Davis, J.H., Schoorman, F.D. and Donaldson, L. (1997). Toward a Stewardship Theory of Management. *Academy of Management Review*, *22*(1), 20-47.

Deakin, H., & Wakefield, K. (2014). Skype interviewing: Reflections of two PhD researchers. *Qualitative research*, *14*(5), 603-616.

De Jong, A., Douglas, V., Mertens, G. and Wasley, C.E. (2005). The role of self-regulation in corporate governance: Evidence and implications from the Netherlands. *Journal of Corporate Finance, 11(3),* 473-503.

Drabble, L., Trocki, K. F., Salcedo, B., Walker, P. C., & Korcha, R. A. (2016). Conducting qualitative interviews by telephone: Lessons learned from a study of alcohol use among sexual minority and heterosexual women. *Qualitative Social Work*, *15*(1), 118-133.

Beatriz, A., & Marc, L. (2011). *The handbook of microfinance.* Singapore: World scientific, pp. 77-100.

De Groot, C. (2015). *Governance in de semipublieke sector en het maatschappelijk middenveld.* Amsterdam: Rozenberg Publishers

Demil, B. and Lecocq, X. (2010). Business model evolution: in search of dynamic consistency. *Long Range Planning*, *43*(2-3),227-246.

De Vries, J. (2014). The netherlands and the polder model: Questioning the polder model concept. *BMGN-Low Countries Historical Review*, *129*(1), 99-111.

Drazin, R., & Van de Ven, A. H. (1985). Alternative forms of fit in contingency theory. *Administrative science quarterly*, 514-539.

Dreyer, B., Lüdeke-Freund, F., Hamann, R., & Faccer, K. (2017). Upsides and downsides of the sharing economy: Collaborative consumption business models' stakeholder value impacts and their relationship to context. *Technological Forecasting and Social Change*, *125*, 87-104.

Dunn, K. (2005) 'Interviewing', in I. Hay (ed.) *Qualitative Research Methods in Human Geography* (2nd edn). Melbourne: Oxford University Press, pp. 79–105.

Denzin, N. K. (1970). *The research act*. Chicago: Aldine

Edling C, Hobdari B, Randøy T, et al. (2012) Testing the 'Old Boys' Network': Diversity and board interlocks in Scandinavia. In: Kogut B (ed.) *The Small Worlds of Corporate Governance.* Cambridge, MA: MIT Press, pp. 183–201.

Fenwick, M., & Vermeulen, E. P. (2019). The End of the Corporation: Transformation in Corporate Governance. In *Challenges and Opportunities of Corporate Governance Transformation in the Digital Era* (pp. 1-17). IGI Global.

Fenwick, M., McCahery, J. A., & Vermeulen, E. P. (2019). The end of 'corporate' governance: hello 'platform' governance. *European Business Organization Law Review*, *20*(1), 171-199.

Goodijk, R. (2008). *Herwaardering van de Rijnlandse principes*. Assen: Van Gorcum.

Goodijk, R. (2012). *Falend toezicht in semipublieke organisaties?: zoeken naar verklaringen*. Assen: Van Gorcum.

Heaton, J. (2008). Secondary analysis of qualitative data. *In Alasuutari, P., Bickman, L., & Brannen, J. The SAGE handbook of social research methods (pp. 506-519).* London: SAGE Publications Lt

El Sawy, O. A., & Pereira, F. (2013). Digital business models: review and synthesis. In *Business modelling in the dynamic digital space* (pp. 13-20). Springer, Berlin, Heidelberg.

Fitzgerald, M., Kruschwitz, N., Bonnet, D., & Welch, M. (2014). Embracing digital technology: A new strategic imperative. *MIT sloan management review*, *55*(2), 1.

Fama, E.F. and Jensen, M.C. (1983) 'Separation of ownership and control', Journal of Law and Economics, Vol. 26, No. 2, pp.301–325.

Freeman, R.E. (1984) *Strategic Management: a Stakeholder Approach.* Boston MA: Pitman

Freeman, R.E. (1999) Response: Divergent Stakeholder Theory Academy of Management Review, *Vol. 24, No. 2, pp. 233-236*

Glinkowska, B., & Kaczmarek, B. (2015). Classical and modern concepts of corporate governance: Stewardship Theory and Agency Theory. *Management*, *19*(2), 84-92.

Groenewald, E. (2005). Corporate Governance in the Netherlands: From the Verdam report of 1964 to the Tabaksblat Code of 2003. *European Business Organization Law Review (EBOR)*, *6*(2), 291-311

Hage, J. T. (1999). Organizational innovation and organizational change. *Annual review of sociology*, *25*(1), 597-622.

Haslam, C., Andersson, T., Tsitsianis, N. & Yin, Y.P. (2013) *Redefining Business Models: Strategies for a Financialized World*. Routledge, London.

Haxhi, I., & Aguilera, R. V. (2015). Corporate governance through codes. *Wiley encyclopedia of management*, 1-3.

Heemskerk, E., & Fennema, M. (2009). Network Dynamics of the Dutch Business Elite. *International Sociology*, *24*(6), 807–832.

Hooghiemstra, R., & van Ees, H. (2011). Uniformity as response to soft law: Evidence from compliance and non-compliance with the Dutch corporate governance code. *Regulation & Governance*, *5*(4), 480-498.

Hung, H. (1998). A typology of the theories of the roles of governing boards. *Corporate Governance: An International Review*, *6*(2), 101-111.

Hulshoff Pol, F. (2019,). Hoe ING verandert van traditionele bank naar techplatform. Retrieved from: https://www.techzine.nl/blogs/trends/432899/hoe-ing-verandert-van-traditionele-bank-naar-techplatform/. Accessed on February 25th.

Ibarra, D., Ganzarain, J., & Igartua, J. I. (2018). Business model innovation through Industry 4.0: A review. *Procedia Manufacturing*, *22*, 4-10

Jensen, M., & Meckling, W. (1976) Theory of the firm: Managerial behavior, agency costs, and ownership structure. Journal of Financial Economics, 3, 305-360.

Jungmann, C. (2006). The effectiveness of Corporate Governance in one-tier and two-tier board systems: Evidence from the UK and Germany. *European Company and Financial Law Review, 3* (4), p. 426-474.

Keay, A. (2014). Comply or explain in corporate governance codes: in need of greater regulatory oversight? *Legal Studies*, *34*(2), 279-304.

Kim, W.Ch. and Mauborgne, R. (2004) Blue ocean strategy. *Harvard Business Review, 80*(10): 76–84

Kim, W. C., & Mauborgne, R. (2014). *Blue ocean strategy, expanded edition: How to create uncontested market space and make the competition irrelevant*. Boston: Harvard business review Press.

Klososky, S. (2011). *The Velocity Manifesto: Harnessing technology, vision, and culture to future-proof your organization.* Austin: Greenleaf Book Group.

Birkinshaw, J. & Gibson, C. 2004. Building ambidexterity into an organization. *MIT Sloan Management Review, 45*(4): 47–7

Boston Consultancy Group (2018). Learning from the best supervisory boards: recipes for success by board chairs of German DAX companies. Retrieved rom https://www.bcg.com/publications/2018/learning-best-supervisory-boards-success-chairs-german-dax-companies.aspx. Accessed on March 11th.

Clarkson, M. B. E. (1995). A Stakeholder Framework for Analyzing and Evaluating Corporate Social Performance. Academy of Management Review, Vol. 20, No. 1, pp. *92-117*

Lu, C., Rong, K., You, J., & Shi, Y. (2014). Business ecosystem and stakeholders' role transformation: Evidence from Chinese emerging electric vehicle industry. *Expert Systems with applications*, *41*(10), 4579-4595.

Luoma, P., & Goodstein, J. (1999). Stakeholders and Corporate Boards: Institutional Influences on Board Composition and Structure. *The Academy of Management Journal, 42*(5), 553-563.

Maassen, G., & Van Den Bosch, F. (1999). On the Supposed Independence of Two-tier Boards: formal structure and reality in the Netherlands. *Corporate Governance: An International Review*, *7*(1), 31-37

Maassen, G.F. (1999) *An International Comparison of Corporate Governance Models.* Amsterdam: Spencer Stuart

Mason, C., Kirkbride, J. and Bryde, D. (2007) .From stakeholders to institutions: the changing face of social enterprise governance theory". *Management Decision*, Vol. 45 No. 2, pp. 284–301.

Matheson, C. (2009). Understanding the policy process: The work of Henry Mintzberg. *Public Administration Review*, *69*(6), 1148-1161.

Matt, C., Hess, T., & Benlian, A. (2015). Digital Transformation Strategies. Business & Information Systems Engineering, 57(5), 339-343.

McDonald, S. (2011). What's in the "old boys" network? Accessing social capital in gendered and racialized networks. *Social networks*, *33*(4), 317-330.

Minow, N. (1991). Shareholders, stakeholders, and boards of directors. *Stetson Law. Rev.*, *21*, 197-243

Mintzberg, H. (1984). Power and organization life cycles. *Academy of Management review*, *9*(2), 207-224.

Monitoring Commissie (2016). De Nederlandse Corporate Governance Code. Par. 2.5

Myers, M.D. (2013). *Qualitative Research in Business & Management.* Thousand Oaks: Sage

Niemand, T., Rigtering, C., Kallmünzer, A., Kraus, S., & Matijas, S. (2017). Entrepreneurial orientation and digitalization in the financial service industry: A contingency approach.

O'Reilly 3rd, C. A., & Tushman, M. L. (2004). The ambidextrous organization. *Harvard business review*, *82*(4), 74.

O'Reilly 3rd, C. A., & Tushman, M. L. (2008). Ambidexterity as a dynamic capability: Resolving the innovator's dilemma. *Research in organizational behavior*, *28*, 185-206.

Peij, S., Brandjes, M. (2012) Onbekend maakt onbemind: De One-Tier Board bij Royal Dutch Shell-Geleerde lessen. *Goed bestuur* 3 (2012): 24-29.

Pennings, J. (1973). Measures of organizational structure: A methodological note. *American Journal of Sociology*, 686-704.

Pfeffer, J. (1972). Size and Composition of Corporate Boards of Directors: The Organization and Its Environment. *Administrative Science Quarterly*, 17, 218-228

Postma, T. J., van Ees, H., & Sterken, E. (2000). *Board composition and firm performance in the Netherlands*. Research School Systems, Organisation and Management.

Pojman, L. P., & Fieser, J. (2017). *Cengage advantage ethics: Discovering right and wrong*. Nelson Education.

Rindova, V. P. (1999). What corporate boards have to do with strategy: A cognitive perspective. *Journal of management studies*, *36*(7), 953-975.

Rink, O. (2020). Reputation Management and a Corporate Identity: Transition to Digital Platforms. In *Challenges and Opportunities of Corporate Governance Transformation in the Digital Era* (pp. 35-60).

Saunders, M., Lewis, P., & Thornhill, A. (2012). Research Methods for Business Students, 6th edn.

Salvioni, D., & Astori, R. (2013). Sustainable development and global responsibility in corporate governance. *SYMPHONYA Emerging Issues in Management*. (1), 28-52.

Salvioni, D., & Bosetti, L. (2006). Corporate governance report and stakeholder view. *Symphonya. Emerging Issues in Management*, (1), 24-46.

Schallmo, D. R., & Williams, C. A. (2016). *Jetzt digital transformieren*. Wiesbaden: Springer Fachmedien Wiesbaden.

Scott, J. (1990). *A Matter of Record: Documentary Sources in Social Research.* Cambridge: Polity Press.

Shaughnessy, H. (2018) Creating digital Ftransformation: strategies and steps. *Strategy & Leadership, 46*(2), pp. 19–25.

Shenton, A. (2004). Strategies for Ensuring Trustworthiness in Qualitative Research Projects. *Educations for Information, 22*(2), 63-75.

Schmidt, J., Drews, P., & Schirmer, I. (2017). Digitalization of the Banking Industry: A Multiple Stakeholder Analysis on Strategic Alignment. *AMCIS 2017 Proceedings* (pp. 1–10).

Schwertner, K. (2017). Digital Transformation of Business. *Trakia Journal of Sciences, 15*(1), 388-393.

Siebel, T. M. (2017). Why digital transformation is now on the CEO's shoulders. *McKinsey Quarterly*, *4*(3), 1-7.

Singh, K. (2007). Research process. *Quantiative social research methods. Sage Publication India Pvt Ltd*, 75-6.

Sleeswijk Visser, F. (2009). *Bringing the everyday life of people into design.* PhD Thesis. Technische Universiteit Delft, The Netherlands

Sturman, M. C. (2003). Searching for the inverted U-shaped relationship between time and performance: Meta-analyses of the experience/performance, tenure/performance, and age/performance relationships. *Journal of management, 29*(5), 609-640.

Sun, Y., Yan, H., Lu, C., Bie, R., & Thomas, P. (2012). A holistic approach to visualizing business models for the internet of things. *Communications in Mobile Computing*, *1*(1), 4.

Sundaramurthy, C., & Lewis, M. (2003). Control and collaboration: Paradoxes of governance. *Academy of management review*, *28*(3), 397-415.

Strikwerda, H. (2018). Moreel kompas op de langere termijn. *Goed Bestuur &Toezicht 2.*

Symon, G. & Cassell, C. (2012). *Qualitative organizational research*. Thousand Oaks: Sage.

Thompson, J. D. (1967). *Organizations in action: Social science bases of administrative theory*. New York: McGraw-Hill.

Tsiatsis, V., Karnouskos, S., Holler, J., Boyle, D., & Mulligan, C. (2018). *Internet of Things: technologies and applications for a new age of intelligence*. Academic Press.

Urbach, N., Drews, P., & Ross, J. (2017). Digital business transformation and the changing role of the IT function. *MIS Quarterly Executive*, *16*(2), 1-4.

Useem, M. (2003). Corporate governance is directors making decisions: Reforming the outward foundations for inside decision making. *Journal of Management & Governance*, *7*(3), 241.

Valentine, G., Clifford, N. J., French, S. (Eds.). (2010). *Key methods in geography (2nd ed)*. London: Sage.

Vermeulen, E. P. (2015). Corporate governance in networked age. *Wake Forest Law Review, 50(3),* 711-742.

Vukanovic, Z., Friedrichsen, M., & Pavlovic, M. (2019). *Digital Value Migration in Media, ICT and Cultural Industries: From Business and Economic Models/Strategies to Networked Ecosystems*. New York: Routledge

Weill, P., & Woerner, S. L. (2015). Thriving in an increasingly digital ecosystem. *MIT Sloan Management Review, 56*(4), 27-34.

Williamson, O. E. (1996). *The mechanisms of governance*. Oxford University Press.

Wilburn, K. M., & Wilburn, R. (2011). Achieving social license to operate using stakeholder theory. *Journal of International Business Ethics*. *Vol*, *4*(2), 3-16.

Winter Sidney, G., & Nelson, R. R. (1982). An Evolutionary Theory of Economic Change. *Rochester, NY: Social Science Research Network*.

van Manen, J. (2017). De Corporate Governance Code 2016. *Maandblad Voor Accountancy en Bedrijfseconomie*, *91*, 124.

8. Appendices

Appendix I: Corporate Governance Codes: the Dutch occasion

A first attempt and debate on self-regulation by corporate governance in the Netherlands, executed by the Peters Committee, failed. Initiated by the as a result of the publication of the Cadbury Report in 1992 on self-regulation by organizations in the United Kingdom, the Peters Committee issued recommendations designed to increase the effectiveness of management, supervision, and accountability to investors of Dutch companies. But due to scant dedication and low compliance, the recommendations given in 1997 had no effect on corporate governance in the years after (De Jong, Douglas, Mertens & Wasley, 2005). But a few years later, March 2003, the Dutch government installed, on the initiative by the Minister of Finance and Minister of Economic Affairs, the Tabaksblat Committee. The main purpose of this committee was to develop an appropriate Governance Code for Dutch (listed) companies based on common principles. The code creates a set of standards governing the conduct of the management board, supervisory board, and shareholders (Akkermans et al., 2006; Hooghiemstra & Van Ees, 2011;). The Tabaksblat Code arranged propositions in five areas: Compliance with and enforcement of the Code, the management board, the supervisory board, the shareholders and general meeting of shareholders, and financial reporting' (Corporate Governance Committee, p. 8, 2003).

The code is regarded as an effective instrument of self-regulation, by means of its uniform standards, with respect to the management and board supervision as it contains of alarge number of recommendations. Since the code became effective in 2004, the code allows some narrow flexibility in its application of the standards of good governance. This because the aim was to improve the governance system by providing principle-based best practices with a legal grounding based on comply or explain. An amendment to Dutch corporate law legally binds listed companies to explain deviations from the Tabaksblat code's recommendations in their annual reports. As (listed) companies are therefore required to dedicate a chapter on corporate governance in their annual reports, the organization has to explain and motivate their decisions on non-compliance in this chapter. As all organizations are different, and, therefore, should not be subject to rigid rules, this comply-or-explain principle indicates that the one-size-fits-all approach is suboptimal. Simultaneously, this approach creates uncertainty as the standards of the code don't automatically fully legitimate

deviations of the code (Bezemer, Maassen, Van den Bosch, Volberda, 2007; Hooghiemstra & Van Ees, 2011; Keay, 2014).

Corporate governance is not only an issue for listed companies. In the footsteps and rising awareness of corporate governance for listed companies, corporate governance codes in multiple Dutch industries' arose in the beginning of the 21st century. The fact that the code is seen as a way of solving issues identified in other industries and society as a whole is a big compliment to its strength. For example, for financial companies such as banks, the Banking Code (October 2014, initiated by the Dutch Banking Association) took effect. Furthermore, the Governance Principles for insurers (July 2013, driven by the Dutch Association of Insurers) was founded. In addition, good corporate governance was recognized by organizations in the semi-public sector and civil society. A corporate governance code on national healthcare took effect in 2010. Furthermore, in 2013 a code on culture was founded, and in 2015 the governance code for housing associations was established. All these forms of governance focus on organizations that engage in activities in a specific sector of society (Aguilera & Cuervo-Cazurra, 2004; Bestuurderscentrum, 2019; De Groot, 2015; Goodijk, 2012)

Not only the Netherlands has a certain code on corporate governance in operation, in 2017 there were 112 corporate governance codes operative worldwide: voluntarily or part of the legislation (Duh, 2017). The disclosure of compliance with a national corporate governance code varies among countries. It may be mandatorily required by the listing authority or law or be fully voluntarily adopted (Cuomo, Mallin & Zattoni, 2016). The increasing influence of the Anglo-Saxon shareholder model towards the Rhineland stakeholder model in the Netherlands forced organizations to respond and comply with the above-mentioned self-regulatory initiatives. Furthermore, organizations feel pressure to comply with the code possibly out of fear that the firm's reputation may be damaged as stakeholders expect business governances to match the best practices of the codes, including information disclosure, ethics, anti-bribery behavior, and the others. This holds for the market-based approach as compliance to codes derives from their potential to protect firms' reputation. As the code is designed to help the supervisory board to weigh up different interests, firms also use it as a tool to provide credible information to consumers and society as a whole. Furthermore, organizations use codes partly as quasi-cartels, to limit competition or even gain competitive advantages (Bartly, 2007; Bezemer, Maassen, Van den Bosch & Volberda, 2007; Corporate Governance Committee, 2003; Rink, 2020). Besides the economic motives on complying with the code, as evidence suggests that shareholders value higher

degrees of compliance with a code, sociology schools stated that affirmative motives are driven by good intentions and a moral obligation (such as Corporate Social Responsibility) to comply to the code can also be a driver of complying to governance codes. This relates to the 'social license to operate' which emphasizes the social aspect of legitimacy and concerns the relationship between an organization and the social context in which the company operates (Hooghiemstra & Van Ees, 2011; Wilburn & Wilburn, 2011).

Appendix II: Organizational change theories

As, according to Beer and Nohria (2000), 70% of all change initiatives fail, it is not admirable that researchers have studied the nature of organizational change for decades (Hage, 1999). At the beginning of the 21th century, authors Beer and Nohria (2000) concluded that the concept of change in organizations had been an either-or propositional: creating economic value for shareholders or develop an open, trusting corporate culture for long-term. To categorize both archetypes of change, the authors defined two theories: Theory O and Theory E.

Theory O is change related to organizational capability and aims at developing, by experimenting and evolving, a corporate culture of organizational learning. As an outcome, organizations enjoy increased productivity and employee commitment. This model is characterized by a 'soft' approach, based on organizational culture and encourages participation bottom-up. The process and approach of this change theory are mainly spontaneous and emergent. Organizations in Europe are likely to embrace this archetype of change because they generally place a high value on employee commitment (Beer & Nohria, 2000).

Theory E holds for organizational change focusing on economic value and stands for a 'hard' approach because it emphasizes on the organizational structure and systems. In this theory, maximizing and ensuring shareholder value is the only legitimate measure of organizational viability and success. As theory E can be seen as a deliberate and planned change, layoffs, downsizings, or restructuring do frequently occur. Leadership in the change consists of managing the change top-down whereas motivation is mainly secured through financial incentives. Strategic changes in line with theory E are very common than among organizations where financial markets push organizational boards for rapid turnarounds (Beer & Nohria, 2000).

Another approach in academic literature on organizational change relates to organizational ambidexterity, which can be seen as another strategic option. Literature in this field declared that organizations that are capable of executing both exploration (adapt the organizational transformation function according to changing market conditions) and exploitation (efficiency and effectivity regarding the input and output of the transformation process) simultaneously could obtain superior performance and secure their long term survival. As stated by multiple authors, successful organizations are ambidextrous aligned and capable of efficiently managing today's demands and simultaneously being able to adapt (Gibson & Birkinshaw, 2004; Tushman & O'Reilly, 2004). Another approach on strategic

options regarding change and strategy in businesses landscapes involves 'oceans' and was initiated by Kim and Mauborgne (2004; 2014).

The red ocean strategy represents all the common industries in existence today. In these red oceans, industry boundaries are defined and broadly accepted. Therefore, competitive formal and informal rules in the industry are known. As the market space in a particular industry gets crowded, forecasts regarding economic profits and growth are continuously reduced. Products become commodities, and cutthroat competition turns the red ocean bloody. Therefore, the management and board of an organization will need to be more concerned with blue oceans than the current cohort of the board is accustomed to (Kim & Mauborgne,2004; Kim & Mauborgne,2014).

The blue ocean strategy, as defined by Kim and Mauborgne (2004), reflects on the occurrence that organizational performance is not necessarily determined by an industry's competitive environment. Blue oceans are defined by untapped market space, demand creation, and the opportunity for highly profitable growth. Therefore this strategy guides organizations in systematically reconstructing their industries and reverse the structure-strategy arrangement to their favor. In this perspective, it is posited that the ideas and actions of individual players (=organizations) can shape the industrial landscape and its structure. In blue oceans, competition is irrelevant because the rules of the game are not set yet (Kim & Mauborgne, 2014). But instead of solely choosing and focusing on a red ocean strategy or a blue ocean strategy, ambidexterity deals with both structures and, therefore, for the different types of activities. Ambidexterity concerns the ability to simultaneously pursue emerging (blue ocean) and mature strategies (red ocean) and is a key factor in ensuring long-term competitive advantage. The dynamic capability of ambidexterity holds for the ability of an organization to reconfigure assets and existing capabilities. In addition, successful execution of ambidexterity gives an organization the ability to simultaneously explore and exploit, which enables an organization to adapt over time (Gibson & Birkinshaw, 2004; O'Reilly & Tushman, 2008).

Appendix III: Interview protocol

Domain	Theoretical constructs	Topics
Introduction		
		Introduction of researcher and respondent
		Context and explanation of the study and contribution of this particular interview
		Informed consent form, record consent on recording audio
Core		**Questions regarding:**
	1.The digital transformation	Agenda items between supervisory board and board of directors
		The knowledge and use of digital applications
		Knowledge on the digital transformation as a whole
		Role regarding governance
	2. Stakeholder theories	Top-3 on most important stakeholders with regard to the digital transformation
		Perspective these stakeholders, individual our group
		Role to be fulfilled on the digital transformation in their organization for stakeholders
	3. Incorporating the digital transformation in internal governance	Trust or distrust on the board of directors
		Ways to inform and incorporate digital knowhow in supervisory boards
		Content or contextual implications
	4. Individual characteristics	Main profession and other supervisory functions
		Market or governmental organization
Closing questions and comments		
	5. Closing	Necessary topics which have not been addressed
		Snowball (ask for other supervisory board members)
		Ask if she/he would like to receive outcomes of this study

Appendix IV: Interview guideline

Interview guide

Introductie:

Allereerst bedankt voor uw tijd en bereidheid om u te mogen interviewen.

Ik ben Chris Garstenveld en studeer aan de Radboud Universiteit te Nijmegen. Ik studeer momenteel voor mijn masterdiploma Bedrijfskunde met als specialisatie Organisatieontwerp en ontwikkeling. Mijn master thesis onderzoek heeft betrekking op de digitale transformatie en hoe toezichthouders deze beschouwen in relatie met hun stakeholders.

Ik wil u vragen of u er mee akkoord gaat dat ik dit gesprek opneem. Zo kan ik het later opnieuw beluisteren voor de transcriptie en analyse. Alle gegevens worden vertrouwelijk behandeld, bovendien kan ik uw anonimiteit waarborgen. Uw naam of de naam van het bedrijf waarvan u toezichthouder bent wordt niet herkenbaar gebruikt in de analyse van de resultaten. Gaat u hiermee akkoord, dan kan ik de opname starten.

Dit interview is opgebouwd in 4 onderdelen:

1. De digitale transformatie
2. Perceptie op stakeholders
3. Incorporeren van de digitale transformatie in toezicht
4. Individuele karakteristieken
5. Afsluiting

De totale interviewtijd bedraagt tussen de 30 minuten en 1 uur.

Mocht u tussendoor vragen hebben of u wilt zich tijdens het interview terugtrekken uit het gesprek geef mij dit dan, dit is immers geen enkel probleem. Ik zal u, wanneer u het op prijs stelt, mijn onderzoeksresultaten middels de definitieve masterscriptie toezenden.

Heeft u nog vragen? Dan kunnen we het interview nu starten.

Deel 1: De digitale transformatie

Inleiding:

De digitale transformatie is de verandering die organisaties bewerkstelligen binnen hun organisatie gedreven door digitale technologie. Deze ontwikkeling impliceert veranderingen voor producten, diensten en businessmodellen van organisaties in zijn geheel. Binnen de digitale transformatie worden toepassingen verwant aan o.a. AI (artificial intelligence), big data & analytics, blockchain, cloud computing, robotics, Internet of Things en social media gebruikt.

Uw organisatie en raad van toezicht/commissarissen heeft in uw jaarverslagen een interessante wijze gerefereerd naar de digitale transformatie. Daar gaan onderstaande vragen over.

1. Wat zijn volgens u momenteel de belangrijkste thema's op de agenda van uw toezichthoudend orgaan?

2. Staat de digitale transformatie vaak op uw agenda?

3. Bent u bekend met de diverse technologische toepassingen (zoals benoemd bovenaan deze pagina) gerelateerd aan de digitale transformatie?

4. Hoe kijkt u als toezichthouder, en uw drie rollen (werkgever, adviseur, controleur), naar de digitale transformatie?

5. Vind u dat uw raad voldoende kennis heeft omtrent de digitale transformatie om zo u toezichthoudende rol voldoende te kunnen uitvoeren?

6. Vindt u dat uw toezichthoudende raad voldoende is samengesteld (middels een mix van expertises en ervaring) om zo de rol als toezichthouder, kijken naar de digitale transformatie, goed uit te kunnen voeren. M.a.w. Heeft u de juiste mensen aan boord?

7. Check vraag: Is governance bevorderend of belemmerd voor digitale innovatie in relatie met vorige antwoorden.

Deel 2: Perceptie op stakeholders

De digitale transformatie leidt tot veranderende klantbehoeften, nieuwe verdienmodellen, het (her)overwegen van strategische posities en nieuwe organisatievormen: dit heeft gevolgen voor bijna alle stakeholders van uw organisatie. Gezien de expliciete formulering in de Corporate Governance Code in Nederland dient corporate governance zondermeer de lange termijn waardecreatie voor alle betrokken stakeholders te beogen. Onderstaande vragen hebben betrekking op uw perceptie hierop.

8. Als u een top 3 moet maken van meest relevante stakeholders (zowel intern als extern) in relatie met de digitale transformatie, hoe zou deze er dan uitzien?

Optioneel doorvragen: Waarom staat X op 1 en prefereert u die boven Y (2) en Z (3)?

9. Hoe volgt u effect van de digitale transformatie, en het handelen van uw organisatie hiernaar, voor uw individuele stakeholder groepen in kaart?

10. Waarom dient u volgens uzelf als toezichthouder te dienen voor de bovengenoemde stakeholders in relatie met de digitale transformatie?

11. Voor welke stakeholdersgroep is volgens u de digitale transformatie het meest impactvol?

(benoemen wanneer nodig)
Medewerkers van de organisatie
Klanten/clienten
Toeleveranciers
Maatschappij in zijn geheel
Overheid
Aandeelhouders
Vakbonden
Anders, namelijk:

12. Wie kent u de meeste prioriteit toe omtrent de digitale transformatie binnen uw handelen als toezichthouder en waarom?
(benoemen wanneer nodig)
Directie/top mgt.
Lijnmanagers
Staf- en support afdelingen
Operationele uitvoerders
Aandeelhouders
Afnemers: bedrijven, consumenten, patiënten, cliënten
NGO's,
Burgers.

Optioneel doorvragen.

12.1 Kijkend naar de digitale transformatie, is die geslaagd als winstgevendheid (aandeelhouderswaarde) gewaarborgd kan worden of vindt u dat alle stakeholders, behalve aandeelhouders/eigenaren, vooral de vruchten moeten plukken.

12.2 Ik vind dat de digitale transformatie voornamelijk investeringen in tijd, geld en energie waard is wanneer het op korte termijn winstgevend is voor de organisatie.

12.3 Ik vind dat de digitale transformatie voornamelijk investeringen in tijd, geld en energie waard is wanneer het op langere termijn duurzame winstgevendheid brengt voor de organisatie.

13. Wat vind u binnen de digitale transformatie het belangrijkst is?

De controlerende/monitorende functie

De adviserende/ondersteunende functie

14. Laat u zich informeren of raadplegen, of adviseert en coproduceert ook mee? (denk aan participatieladder)

Deel 3: Incorporeren van de digitale transformatie in toezicht

Nadruk leggen op dit zijn 'extra vragen' .

15. Hoe informeert u zich omtrent de digitale transformatie? (M.a.w. , welke bronnen gebruikt u?

Via digitale media. Uitschrijven.

☐ Kennis en expertise uit mijn vorige functies
☐ Collega leden van de raad
☐ Bedrijfsbezoeken
☐ Scholing d.m.v. opleidingen, cursussen en leergangen
☐ Het bijwonen van congressen
☐ Artikelen in vakliteratuur etc.
☐ Binnen de branchevereniging
☐ Via externe bureaus die dienen als adviseur/consultant
☐ Niet
☐ Anders, namelijk:

16. Hoe informeert u zichzelf over de (voortgang van) digitale transformatie binnen de organisatie waarvan u toezichthouder bent?

17. Krijgt u voldoende informatie aangereikt van de bestuurder/interne organisatie omtrent de digitale transformatie?

18. Maakt het bestuur voldoende gebruik van de mogelijkheden in uw ogen?

19. In hoeverre acht u zich in staat om de gevolgen van de digitale transformatie voor uw organisatie in hoofdlijnen of op detailniveau te kaderen?

20.

21. Hoe ziet u de digitale transformatie, als een strategisch of operationeel vraagstuk?

22. Wat acht u nodig om uw toezichthoudende taak in relatie met de digitale transformatie goed of zelfs beter te kunnen uitoefenen? Denk aan tijd, kennis en deskundigheid, informatie of geeft u zelf een ander voorbeeld.

Deel 4: Individuele karakteristieken

23. Ben u naast toezichthouder van deze organisatie nog toezichthouder binnen andere organisaties?

24. Zo ja, in welke sectoren bevinden deze bedrijven zich?

25. Hoelang bent u al toezichthouder?

26. Ziet u uzelf als marktbedrijf of als semioverheid.

27. Deel 5: Afsluiting

28. Heeft u nog iets toe te voegen, of iets dat we volgens u vergeten zijn te bespreken?

29. Kan ik u nadien nog contacten voor eventuele vragen?

Optioneel doorvragen
➔ Ik wil u hartelijk danken voor uw bijdrage. Laten we in contact blijven omtrent de uitkomsten.

Appendix V: Initial codebook

Theories	Constructs		Codes
Coalition theory	Internal coalition		IC: Serving the employees in the organization
			IC: The organization itself
			IC: CEO and other board executives
			IC: Top management
			IC: Operators (primary processes, e.g. producers/manufacturers)
			IC: Line managers
			IC: Techno structure
			IC: Staff and support departments
			IC: The supervisory board
			IC: Works council
			IC: Outside the organization: employee associations
Coalition theory	External coalition		EC: Serving stakeholders outside of the organization:
			EC: Shareholders
			EC: Competitors
			EC: Society
			EC: Clients
			EC: Suppliers
			EC: Employer organizations
			EC: Partners / friendly competitors
			EC: Public opinion

Stakeholder theories	Agency		A: Distrusting the management board
		- 83 -	
			A: Supervisory board emphasizes on control and monitoring role
			A: Extrinsic motivation
			A: Profit as performance criteria (to ensure shareholder value)
			A: Maximizing usefulness and effectiveness of the management board on behalf of the shareholders
			A: Economic rationalism, not situational factors
			A: Opportunism: conflict of interest
Stakeholder theories	Stewardship		S: Relation with board of directors based on trust
			S: Supervisory boards emphasizes on sparring partner- and advisory role
			S: Pro-organizational behavior: organizational development
			S: Intrinsic motivation: getting job well done
			S: Performance criteria relies on gaining stakeholder value
			S: Gives credit and appreciation for the M.B.
			S: Goal alignment

Appendix VI: Final codebook

Themes	Constructs	Codes	Examples
Coalition theory	Internal coalition	The organization itself	*"Yes, so getting the internally organization with you, on the digital strokes you make, is very important."*
	Internal coalition	CEO and other board executives	*''First of all, the most important stakeholder internally is the management and the board. Because if they do not see the urgency and necessity, nothing will happen.''*
	Internal coalition	Top management	*Because that is why the board of directors is there: it has to manage it, with the management team. After all, the board of directors has plenty of room to hire innovative, smart, young people and come up with the wildest ideas. It has to happen there!.''*
	Internal coalition	Operators (in the core, e.g. producers/manufacturers)	*''Yes the nursing, with those people specifically, that everyone should be able to deal with that: they had to make themselves free for training, they should also see it as a priority, which occasionally created some bottlenecks.''*
	Internal coalition	Line managers	*''This indicates that the world is bigger than the government, and in terms of stakeholders it is important to have a good network on that commercial side and to know what is going on. So the organization is now also geared up for this, with a number of commercial business marketing managers.''*
	Internal coalition	Staff and support departments / techno structure	*''And then also the senior management, if you are talking about departments*

			then I would involve the marketing and ICT department.''
	Internal coalition	Residents	*''The resident is in a dependent situation, and that is something different from a customer. The customer also has a number of choices that a resident does not have. The resident is not seen as a patient, but really as a resident.''*
	Internal coalition	Employee participation bodies (e.g. works concils)	*''Who else do you have as stakeholders, perhaps you can say the employee representative bodies''*
Coalition theory	External coalition	Shareholders	*''No, I don't think at such a level shareholders are asking questions about the digital transformation, it's just about the corporate strategy. Yes and at KPN, for example, that is simply part of that. In my own experiences with shareholders, yes of course we are talking about the digital component in an annual meeting, or informal setting, yes then we are talking about it.''*
	External coalition	Competitors	*''You always see that who wins [from all competitors in the market] in the digital revolution is the one who serves the end customer. And of course it always plays there where it used to be, yes that is business administration, in the past you could win if you were the cheapest, the best. In a digital world you can be both the cheapest and the best.''*
	External coalition	Society	*''The economic prosperity and social well-being of the region, because you have to contribute to that by delivering good students. Who are good in life. We are not only looking at technical development, but also very nicely said that it will become a good citizen. As far*

			as you can influence that of course.''
	External coalition	Clients and customers	*''Yes specific to segment, we also make blue pork for Albert Heijn, we say, haha! Because yes Albert Heijn has other requirements like Plus, yes fine. And we are also going to use that digitization, that on the one hand the transparency in the price and on the other hand you can build really beautiful chains that are very specific. Wherever animal welfare is concerned, there is a lot of attention for it, by specifically focusing on it.''*
	External coalition	Suppliers	*''But also what does that farmer earn. But that farmer can also see the other way around, what margins are being achieved there?''*
	External coalition	Partners	*''what I find interesting in the context of stakeholders, then I think we can learn a lot more from each other. That we as colleagues, that we work together in digital transformation: for example, museums and other conference buildings.''*
	External coalition	Government	*''Another important stakeholder for us is the minister. We have the Minister of Economic Affairs as a point of contact in terms of stakeholders, which is very important. Because if the minister finds something then you have to be prepared for it, or play him in such a way that he will find something else..''*
Stakeholder theories	Agency	Supervisory board emphasizes on control and monitor role	*The controlling functioning is the most important, because we want the organization to do it the right way. And after*

			all, the organization does it itself.
	Agency	Distrusting the board of directors	*''Yes. it is real, we have, with all respect, no overflow of good people at the top of our organization.''*
	Agency	Maximizing usefulness and effectiveness of board of directors	*''Then you tell it a few times, just in between. Or you let someone say that you have to drink coffee or something. And then finally the board of directors comes up with an idea, and then you say: wow super, well done, keep going!.''*
Stakeholder theories	Stewardship	Relation with board of directors based on trust	*''Is that necessity also recognized enough by the board? Yes. That is said by their hearing that they want it. And it is very brave that they do that with each other, that they really say with each other: we are going to do this together.''*
	Stewardship	Supervisory boards emphasizes on sparring partner- and advisory role	*''I involve myself and give more advice than that I supervise.''*
	Stewardship	Pro-organizational behavior: organizational development	*''An organization must pull itself out of the swamp if it realizes its own innovation. So you have to make sure that there are enough impulses from outside that you can hold mirror to yourself''*
	Stewardship	Intrinsic motivation: getting job well done	*'' You need to make sure you have a board that doesn't get in the way.''*
	Stewardship	Performance criteria of the organization is stakeholder value	*''Then you have to constantly think, for whom am I doing this: and that is also society, a very wide range.''*
	Stewardship	Gives credit and appreciation to the board of directors	*''We do have a very board. Really a top director! And she wants a lot, and yeah, she does a lot.''*
	Stewardship	Goal alignment	*''Because we want the organization to do it the right way.. supportive And after*

			all, the organization does it itself.''
Digital transformation	Incorporating in organization	Digital transformation as agenda item on meeting between supervisory board and board of directors	*''And the third is indeed, that is why I chose it, ICT and digitization, digital transformation, we really have that on the agenda. And it has been decided that we will really spend a lot of money on that.''*
	Incorporating in organization	Development of digital transformation in organization	*''There we also see that we want to digitize many processes, and we have actually released a large budget to attain that. A CIO has been appointed in our organization, to ensure that there will be much more of an information plan and an automation plan that we will explicitly outline.''*
		Knowledge and vision on digital transformation in board of directors	*''However, as an employer we have pointed out to him that this would be an important development and that he had to prepare himself for it. Well, I don't know by heart whether he participated in sessions for cooperative directors, but he did orient himself in this direction: he understood that this was important''*
		The knowledge of digitalization in supervisory boards	*''There are themes that I know about by now. I am not an expert, but I know what is going on. What I find interesting is that I read along with someone who is doing a thesis on blockchain and supervision, which I learn a lot from, haha''*
		Content of the digital transformation. E.g. applications on big data, A.I, BI, Blockchain, IoT etc.	*''That is very soon in home care in home automation, domotica. Let me just mention something, experiments with those glasses on which information is projected. Those are the*

			glasses with which you can let people watch from a distance.''
		Strategic context. E.G: Chance and risk	*''It is worth creation but also worth preservation: the question is whether you can do without it. It always is, there are more and more new questions, but more and more, yes, the environment is also changing.''*
Internal governance	Role to fulfill	Supervisor	*''Supervision always has something, after all, sit down again to do something. Check the progress, but you can only watch: what happened until then?''*
		Sparring partner, advisor, consulting	*'I find it much exciting to ask the questions of the future and to do the challenge with my director: in the end you will get on with that.''*
		Employer of the board of directors	*''And the ultimate consequence is that you have people, and that new directors are coming. Because you are also an employer, and then you say to each other: it is better to say goodbye to each other. To steer by means of that way.''*
		Role on digitalization	*''and you have to look at the same things with risk glasses: that is about transformation risk. Everything is involved. In addition, supervisors also involve risks associated with digitization, such as cyber security. You have to make sure that the driver does the right things.''*
		Role as important as finance	*'' And there are countless courses for financial, and for non-financial. I do agree with the fact that every supervisory director should be able to read a profit and*

			loss account and I now also believe that this also applies to digitization and IT: you just can't really shout as supervisory director at this time: here I really don't know anything about, it just can't be that way anymore.''
	Other:	Vacancy profile of supervisory boards	*''Yes, in the current time it is certainly a point to include IT expertise in supervision and that has also been actively sought in the past period: there is now actually a candidate without a line who is to be included in the organization, which is taking place supervise.''*
Other	COVID-19	Influence on governance in digitalization	*''Yes and now, then in corona time, hey what does this mean for us as an organization? And what does it mean, they are not just opportunities, but what does working digitally mean for our customers, because it really has an impact.''*
Organizational change theories	Theory O	Organizational capabilities trough learning	*'' This makes you think continuously: and now? What's next? What is the next aspect that we can make better through technology, in this case.''*
	Theory O	Increased productivity	*'' The highest priority should lie with the IT policy as a supervisor, which you can achieve the maximum result with the scarce resources you have.''*
	Theory O	Increased commitment	*''And secondly: then you have commitment because it came about with your clients themselves.''*
	Theory O	Organizational culture	*''That's the hardest part. Yes, that always has, yes there comes the big word culture again: to make culture and to make mindset. And that's*

		- 91 -	*where it usually goes wrong, so you bring in data analysts, but at some point they just walk away if they don't get the right questions.''*
	Theory O	Spontaneous and emergent (bottom-up)	*''These are really taken into account, that ideas are outlined by the clients themselves, the customer. That they then have thought about the apps.''*
Strategic market perspective theories	Ambidextrous organization	Executing both exploitation and exploring	*''That is why it has been deliberately set aside so that we can focus our development power on it without immediately interfering with your existing organization.''*
	Ambidextrous challenge	(Stressing) choice	*''That's incredibly difficult, really incredibly difficult. And very sensible people can do very stupid things in that kind of situation. And that has happened often and it will continue to do so''*

Appendix VII: Context mapping worksheet; method to analyze an interview intersubjectively

This session was held on Friday 29-05-2020 from 13.00 till 14.15 PM.

colourbar	After printing, please mark this field in your personal colour (for easy sorting)
paraphrase	This supervisory board emphasizes on the role digital transformation can play for their internal organization: their core healthcare employees. The digital transformation is seen as way to reduce administrative tasks in order to have more time to spend on residents of the nursing home.
quote	*''Well, they also do their own administration and they are especially bothered by this, because the administrative pressure is quite high. The regulatory burden and all. And automation is unable to take that off their hands, and they should. That has had consequences for the hands on the bed, see if you as a healthcare professional spend 10% of the time on administration, that is half a day a week, isn't it! That is quite a big deal!''*
Space for notes during session	This quotes relates to the internal coalition: operators/core employees in the operating core. In this case, nurses in an elderly care home.

colourbar	After printing, please mark this field in your personal colour (for easy sorting)
paraphrase	Aimed at maximizing organizational performance by giving full confidence and decision-making power to professionals.
quote	*''No I don't care what the outcome is. As long as it has been well thought out. Healthcare professionals themselves are much better able to weigh up what is useful. I would like it if I notice that those professionals have thought about it. If they come to the conclusion that the fight against solitude is their highest priority, that they find them going with those cuddly dogs or robot dogs: I would be fine with that.''*
Space for notes during session	This quote relates to pro-organizational behavior, a stewardship concept, by this supervisory board, which argues that the policy should be clear as employees themselves are able to weigh op the consequences in seeking to achieve the organization's objectives.

colourbar	
paraphrase	By questioning the board of directors, the supervisory boards aims at testing the trust, which is secured due to very decent and appropriatie answers and discussions.

quote

''So look at our board, we always get good detailed answers. Also on improvised spontaneous questions, so that you also have the edges of the reasoning, then that director consists of taking it very well. In short: this director is in control. So you see things she expects, whether they come true or not, then there is always a good story.''

Space for notes during session

This quote relates to the stewardship: trust in board of directors. The director is seen as fully in control, which means that the supervisory boards fully trust and engages in the policiy made by the board of directors.

Appendix VIII: Informed consent protocol form

PROTOCOL FORM REGARDING INFORMED CONSENT

For participation in the research on supervisory boards and their awareness regarding the implications of the digital transformation.

Prior to the start of the interview the participant should fill out this part of the form:

As a participant, I do understand and declare that:

- My participation is completely voluntarily.
- I have the right to withdraw my consent and participation at any time without having to give a reason, and that the withdrawal of my participation has no further consequences and implications.
- I give permission for the interview to be recorded with a voice recorder on mobile phone.
- The results of this research may be published in the master thesis report of the researcher.
- The data will be processed anonymously and cannot be traced back to me.
- The recording of the interview will be destroyed when the research has been completed.

Signature:………………………………………………………………………….

Name:………………………………………………………………………………..

Date:……………………………………………………………………………….

As a researcher I have verbally explained the nature, method and purpose of the study and this interview. Hereby I declare to be willing to answer further questions the subject may have concerning the research

Signature:………………………………………………………………………….

Name:………………………………………………………………………………..

Date:……………………………………………………………………………….

Appendix IX: Initial proposal for conducting a survey

Could guide future research as a base, to be specified further by another researcher.

Geachte toezichthouder,

Wanneer er in deze vragenlijst de term 'raad' wordt benoemend wordt bedoeld een raad van commissarissen of een raad van toezicht.

Deze vragenlijst is onderdeel van een onderzoek naar toezichthouders in tijden van digitale transformatie en de invloed van stakeholders in relatie met deze transformatie op de raad van toezicht/commissarissen.

De vragenlijst is opgebouwd in 4 onderdelen:

1. Introductie en individuele karakteristieken

2. De digitale transformatie

3. Incorporeren van de digitale transformatie in toezicht

4. Perceptie op stakeholders

Voor het vervolg van mijn onderzoek ga ik graag in gesprek (telefonisch of via het internet) met u als toezichthouders omtrent het bovengenoemde onderwerp, zou u mij hier mee willen helpen? Aan het einde van de vragenlijst heeft u daarom de mogelijkheid om uw contactgegevens achter te laten wanneer u bereid bent tot een kort interview. U krijgt dan uiteraard toegang tot de (eind)rapportage van mijn master thesis onderzoek.

Hartelijk dan voor uw medewerking,

Met vriendelijke groet [De onderzoeker.]

Deel 1. Introductie en individuele karakteristieken

Vraag 1: wat is uw educatieve achtergrond?

Accounting/financieel

Bedrijfskunde

Juridisch

Natuur-/scheikunde

Sociale wetenschappen

ICT

Overig, namelijk:

Vraag 2: Hoe lang bent u al toezichthouder?

<5 jaar

6-10 jaar

11-15 jaar

16-20 jaar

21-25 jaar

>25 jaar

Vraag 3:

Van welke organisatie(s) bent u toezichthouder?

[open vraag]

Vraag 4:

In welke sector bevindt de organisatie (s) waarvan u toezichthouder bent zich?

Industrie

Bouwnijverheid

Transport en opslag

Zakelijke dienstverlening

Overheid

Handel

Gezondheidszorg

Onderwijs

Financiële dienstverlening

Horeca

Informatie en communicatietechnologie (ICT)

Overig, namelijk:

Vraag 5:

Hoeveel medewerkers heeft/hebben de organisatie(s) die u dient als toezichthouder?

<25

25-49

50-99

100-149

150-499

500-999

1000-2499

2500-4999

>5000

100-500

>500

Vraag 6: Is de organisatie waarvan u toezichthouder bent beursgenoteerd?

Ja

Nee

Vraag 7: Wat is volgens u het belangrijkste onderwerp waarmee u als toezichthouder momenteel het aanraking komt?

ICT/Digitale transformatie

Strategieontwikkeling en advies

Executive en non- executive recruitment

Communicatie met aandeelhouders

Risico management

CSR en reputatiemanagement

Communicatie met stakeholders, voornamelijk:

Financiële rapportage en controle

Compliance issues

Overig, namelijk:

Deel 2: De digitale transformatie

De volgende vragen gaan omtrent de digitale transformatie. Om een helder beeld te creëren omtrent dit begrip, hanteren we binnen deze enquête onderstaande definitie van een digitale transformatie: Een digitale transformatie is de verandering die organisaties bewerkstelligen binnen hun organisatie gedreven door digitale technologie. Deze ontwikkeling impliceert veranderingen voor producten, diensten en businessmodellen van organisaties in zijn geheel. Binnen de digitale transformatie worden toepassingen verwant aan o.a. AI (artificial intelligence), Big Data & analytics, Blockchain, Cloud Computing, Robotics, Internet of Things en social media gebruikt.

Vraag 8: Is binnen de organisatie(s) waarvan u toezichthouder bent sprake van of onderhevig aan digitale transformatie? Dit kan zowel voltooid zijn, zich continue afspelen, of gepland zijn.

-Ja

-Nee

Vraag 9: Ik zie de digitale transformatie als een:

-Strategisch vraagstuk

-Operationeel vraagstuk

Vraag 10: Ik zie de digitale transformatie als een:

-eenmalig IT-project

-continu proces

Vraag 11: Bent u bekend met de diverse technologische toepassingen (zoals benoemend bovenaan deze pagina) gerelateerd aan de digitale transformatie?

-Ja

-Nee

Een beetje

Vraag 12: De kennis omtrent digitale technologieën is in onze organisatie het meest aanwezig in:

-Het hogere kader

-Het middenkader

-De directie

-RvC/RvT leden

Vragen 13 tot en met 26 zijn 5-punts likert-schalen(sterk mee oneens, oneens, neutraal, eens, sterk mee eens)

Vraag 13: De organisatie die ik dien is volledig afhankelijk van ICT

Vraag 14: De digitale transformatie heeft een dusdanige impact op de organisatie waarvan ik toezichthouder ben dat het bedrijfsmodel en de waardeketen aan sterke verandering onderhevig is of zal zijn

Vraag 16: De Digitale transformatie staat prominent op de agenda van onze raad

Vraag 17: Binnen onze raad is er een goed ontwikkelde visie op digitalisering waarbij elk lid de technologie en innovatie begrijpt en aanvoelt met diepgaande kennis op deze gebieden

Vraag 18: Ik heb als individueel lid van de raad genoeg digitale expertise en ervaring om goed toezicht te houden en advies uit te brengen op de digitalisering en de digitale transformatie binnen mijn organisatie om zo mijn rol afdoende te kunnen vervullen.

Vraag 19: Binnen de organisatie waarop ik toezicht houd vind ik dat er sprake is van juiste cultuur (bijvoorbeeld een lerende organisatie) om de digitale transformatie te laten slagen.

Vraag 20: Onze raad bestaat uit de juiste samenstelling en mix van expertises en (praktijk) ervaring om zo de rol als toezichthouder in tijden van disruptie omtrent de digitale transformatie goed te uit te kunnen voeren.

Vraag 21: Onze raad is in staat om de bestuurders van onze organisatie kritisch en voldoende uit te dagen (vanwege de aanwezige kennis en expertise omtrent digitalisering) om zo countervailing power te kunnen bewerkstelligen.

Vraag 22: Binnen onze raad wordt er ook buiten onze eigen expertises kennis gezocht (d.m.v. adviseurs of het leren van andere sectoren) omtrent onze toezichthoudende rol binnen digitale transformatie

Vraag 23: Ik kijk, naast het managen van uitdagingen die momenteel spelen, ook naar wat de toekomst brengt voor de organisatie omtrent de digitale transformatie.

Vraag 24: Onze raad kijkt, naast het managen van uitdagingen die momenteel spelen, ook naar wat de toekomst brengt voor de organisatie omtrent de digitale transformatie.

Vraag 25: Omtrent de digitale transformatie leggen wij als raad meer accent op inhoudelijke diepgang en strategie in plaats van continuïteit

Vraag 26: Toezicht houden op digitalisering gaat meer over leiderschap en strategisch management dan over technologie.

Deel 3. Incorporeren van de digitale transformatie in toezicht

Vraag 29 Hoe informeert en leert u omtrent de digitale transformatie?

Open tekst

Vraag 30: Welke van de onderstaande bronnen heeft u gebruikt om zich te informeren omtrent de digitale transformatie?

-Kennis en expertise uit mijn vorige functies

-Collega leden van de raad

-Bedrijfsbezoeken

-Scholing d.m.v. opleidingen, cursussen en leergangen

-Congressen bijwonen

-Artikelen in vakliteratuur etc.

-Binnen de branche

-Via externe bureaus als adviseur/consultant

-Anders, namelijk:

Vraag 31: Omtrent de rol van digitale transformatie en de gevolgen voor onze organisatie

-Weten wij als raad gedetailleerd wat de implicaties en gevolgen van zijn

-Erkennen wij op hoofdlijnen de implicaties

-Hebben wij hier (nog) geen visie op

-Dit is niet voor ons van toepassing

Vraag 31:Wat acht u nodig om uw toezichthoudende taak in relatie met de digitale transformatie goed of zelfs beter te kunnen uitoefenen?

-Niets

-Meer tijd

-Meer kennis en deskundigheid

-Meer informatie

-Betere informatie

32: Beschikt uw raad over een profielschets voor toekomstige (nieuwe) raadsleden omtrent digitale transformatie?

-Ja

-Nee

Vraag 33:

Er van uitgaande dat u als toezichthouder drie rollen heeft: werkgever, adviseur, controleur zie ik in relatie met de digital transformatie mijn taak vooral als:

-Werkgever

-Adviseur/sparringpartner

-Controleur/monitoren

Vraag 34: Meerdere antwoorden mogelijk: Ik zie de digitale transformatie als een:

-Kans

-Bedreiging

-Risico

-Uitdaging

Vraag 35: Hoeveel procent van de tijd van de vergaderingen van uw board besteden jullie aan onderwerpen binnen de digitale transformatie.: %

Deel 4: Stakeholders:

De digitale transformatie leidt tot veranderende klantbehoeften, nieuwe verdienmodellen, het (her)overwegen van strategische posities en nieuwe organisatievormen: dit heeft gevolgen voor bijna alle stakeholders van uw organisatie. Gezien de expliciete formulering in de Corporate Governance Code in Nederland dient corporate governance zondermeer lange termijn waarde creatie voor alle betrokken stakeholders te beogen.

Vraag 36. Open vraag:

Welk doel dient u als toezichthouder te dienen voor uw stakeholders in relatie met uw digitale transformatie?

Vraag 37 tm 52 zijn op basis van een 5-punts Likert schaal

Als toezichthoudende raad

37. Vertalen wij digitale ontwikkelingen naar bedreigingen en kansen voor onze onderneming

38. Behandelen wij digitale ontwikkelingen met betrekking tot de ontwikkeling van de strategie

39. Brengen wij het effect van de digitale transformatie op individuele stakeholder groepen helder in kaart

40. Betrekken wij stakeholders om hun zienswijze omtrent digitalisatie met ons te delen en

41. De organisatie waarop ik toezicht houd erkent voldoende dat diverse stakeholders ieder hun eigenlijk belang, invloed of afhankelijkheid hebben omtrent de digitale transformatie van onze organisatie.

42. De digitale transformatie heeft mijn inziens wederzijdse invloed op:

-Medewerkers

-Samenwerking binnen afdelingen van de organisatie

-Businessmodel

-Klanten/Clienten

-Bedrijfscultuur

-Toeleveranciers

-Maatschappij in zijn geheel

-Overheid

-Aandeelhouders

43. De digitale transformatie dient uiteindelijke aandeelhouderswaarde als belangrijkste meet-, en succesfactor te appreciëren

44. De digitale transformatie dient organisatorische- en stakeholderswaarde (anders dan aandeelhouders) als belangrijkste succesfactor te appreciëren

45. De digitale transformatie is voornamelijk de investeringen in tijd, geld en energie waard als het op korte termijn winstgevend is voor de organisatie

46. De digitale transformatie is voornamelijk investeringen in tijd, geld en energie waard als het op langere termijn duurzaam (bedoeld als lange levensduur) winstgevend is voor de organisatie

47. Binnen de digitale transformatie is de monitorende en controle functie van onze raad het belangrijkst

48. Binnen de digitale transformatie is de adviserende functie van onze raad het belangrijkst

49. Binnen de digitale transformatie kijk en werk ik als toezichthouder op basis van controle naar de ontwikkelingen die de organisatie omarmt of niet

50. Binnen de digitale transformatie kijk en werk ik als toezichthouder op basis van ondersteuning naar de digitale ontwikkelingen die de organisatie omarmt of niet

51. Als individueel toezichthouder kijkend naar de digitale transformatie weegt u de belangen af van diverse interne, en externe coalities. Welke prioriteit kent u toe aan onderstaande belangengroepen?

Directie/Top management

-Lijnmanagers

-Staf- en support afdelngen

-Operationele uitvoerders

-Aandeelhouders

-Afnemers: Bedrijven/Klanten/Consumenten/Patiënten/Cliënten

-Toeleveranciers

-Ngo's

Burgers

Vraag 52: Het externe krachtenveld rondom uw organisatie in relatie met de digitale transformatie kan gekarakteriseerd worden als:

Eén gelijkgestemde individu of groep met veel invloed

Enkele niet gelijkgestemde groepen met ieders hun eigen invloed en eisen

Meerdere individuen of groepen met relatief lage invloed en conflicterende eisen

Dit was de laatste vraag van de vragenlijst, Hartelijk dank voor uw medewerking!

Staat u open voor een kort interview (telefonisch of digitaal), vul dan hieronder uw gegevens in. Ik kom graag met u in gesprek! U krijgt dan ook uiteraard toegang tot mijn onderzoeksresultaten.

Ook als u nog overige opmerkingen heeft kunt u deze hieronder invullen, denk hierbij bijvoorbeeld aan zaken in relatie met toezicht en de digitale transformatie die nog niet benoemd zijn of niet aan de orde zijn gekomen in deze vragenlijst, en dergelijke.

Wanneer u op x klikt, worden uw resultaten opgeslagen.

Appendix X: Evolved theoretical outcomes

	Stewardship	Agency
Internal	**I:** Serving internal stakeholder (employees) **S:** Goal alignment Trust the board of directors Advisory and sparring role Pro organizational behavior Internal stakeholders value (all employees) O:Bottum-up change, commitment, organizational learning culture, productivity	**I:** Not found **A:** Not found
Internal + external	Both internal and external coalition perspective. Internal digitalization success (employees and IT-structure) as prior precondition to execute digital transformation external for clients and customers	**E:** Serving external stakeholders: customers and accompanying value chain
External	**E:** Serving external stakeholders :customers and society **S:** Goal alignment Trust the board of directors Advisory and sparring role Pro organizational behavior External stakeholders value (clients and society) O: Bottum-up change, commitment, organizational learning culture, productivity	**A:** Distrusting board of directors Maximizing effectiveness of board of directors