Leading ambidexterity

A thesis about how leadership can influence collaboration and ambidexterity in healthcare organizations

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Preface

Here in front of you, you will find the thesis "Leading ambidexterity". The study for this thesis towards the relationship between management, collaboration and ambidexterity has been executed within the St. Anna hospital in The Netherlands. This thesis has been written in order to graduate for the master Management & Organisation at the Erasmus University Rotterdam. From October 2016 until June 2017, I have been writing this thesis.

From my previous thesis "Trust, the key competence of every internal advisor", I got inspired by intra-organizational relationships and how they can be shaped and what the effects can be. Therefore, I spoke to Ferry Koster, my supervisor for this thesis, who has also been a big inspiration to me for my previous thesis and my current subject; the relationship between management, collaboration and ambidexterity. I would like to thank him for being such an inspiration to me.

I have learned a lot from this study about managerial roles, collaboration and ambidexterity. Also, I have learned to open up my close network when looking for respondents. Therefore, I want to thank my colleagues within the St. Anna hospital for helping me out, supporting me and creating time in their busy schedules and making it possible for me to execute my study.

I hope that you will be just as enthusiastic about this subject after reading the thesis as I was when I was writing it. I wish you a lot of joy while reading it!

Warm Regards,

Gina van Bree

June 2nd, 2017

Abstract

Health insurers in The Netherlands are becoming more powerful and more demanding towards healthcare organizations. Therefore, healthcare organizations are expected to work as efficient as possible, but also to be constantly innovating (Adler et al., 2003). How these organizations manage to do so, is still unknown. In order to investigate these developments, the concepts of collaboration and organizational ambidexterity were used. So far, it is only known from studies that there is a connection between management and collaboration and between collaboration and ambidexterity, but not how it exactly works out in practice (Adler & Heckscher, 2013; Carmeli & Halevi, 2009; Ghoshal & Bartlett, 1994). On the basis of a qualitative study at a Dutch hospital, this study examines what managers do to create collaboration within the hospital and how collaboration can lead to organizational ambidexterity on its turn.

However, collaboration and organizational ambidexterity as two static concepts are being challenged by the narratives of the respondents. They describe the concepts more as ongoing processes. For accomplishing organizational ambidexterity, collaboration or collaborative communities have to be created. In order to do so, healthcare organizations need to loosen the interdepartmental boundaries and they need professionals in the lead. A way to do this is by creating dual management within organizations in which professionals and managers collaborate and integrate their knowledge and by creating multidisciplinary teams around patients with a specific medical condition.

Key words: Ambidexterity, collaboration, collaborative communities, management roles, Dutch healthcare

Content

Health insurers in The Netherlands are becoming more powerful and more demanding towards healthcare organizations. Therefore, healthcare organizations are expected to work as efficient as possible, but also to be constantly innovating (Adler et al., 2003). Howbeit, earlier it was believed that organizations can only focus on either one of these activities as the activities might be in conflict (Adler, Goldoftas & Levine, 1999; Cameron & Quinn, 2011; Quinn & Rohrbaugh, 1983; Thompson, 1967). Recently, some researchers believe that it is also possible for organizations to explore new opportunities and exploit existing capabilities simultaneously, which is called 'organizational ambidexterity' (Adler & Heckscher, 2013; Gibson & Birkinshaw, 2004; Gupta, Smith & Shalley, 2006; March, 1991; Raisch et al., 2009).

Less is however known about the conditions under which ambidexterity arises. Some researchers indicate that there is a link between collaboration and organizational ambidexterity and some researchers also indicate that collaboration can be created through certain management techniques (Adler, 2001; Adler & Heckscher, 2013; Carmeli & Halevi, 2009). While these concepts (management, collaboration and ambidexterity) have been studied broadly, they have mostly been investigated in isolation (Adler & Heckscher, 2013; Gibson & Birkinshaw, 2004; Gupta, Smith & Shalley, 2006; March, 1991; Raisch et al., 2009). So, whether and how they are connected is still unclear. Whether the results of current studies are applicable to Dutch healthcare is also debatable, as no studies have been conducted within this particular field. These organizations are to some extent regulated by the government as well as other influential parties. Moreover, professionals possess a high level of autonomy instead of that power is more concentrated at the managerial level. Accordingly, it is unclear what the internal influences within those organizations can be when they want to become ambidextrous.

Therefore, the goal of this thesis is to analyse existing theories, relations and empirical data in for creating more insight in how ambidexterity might be accomplished within the Dutch healthcare sector, what techniques managers can use to trigger collaboration and how this may lead to ambidexterity. In order to do so, the next research question is stated: ***"How do managers in hospitals that strive for ambidexterity influence the conditions that are necessary for collaboration?"*** For answering this question, the following secondary questions were formulated:

1. '*What is known about collaboration and organizational ambidexterity?'*

2. *'How do managers shape collaboration in hospitals and how can this be explained?'*

3. *'How do the conditions that are necessary for collaboration influence ambidexterity?'*

4. *'What are the theoretical mechanisms explaining the relationships between management actions, collaboration and ambidexterity?'*

1. Theoretical background

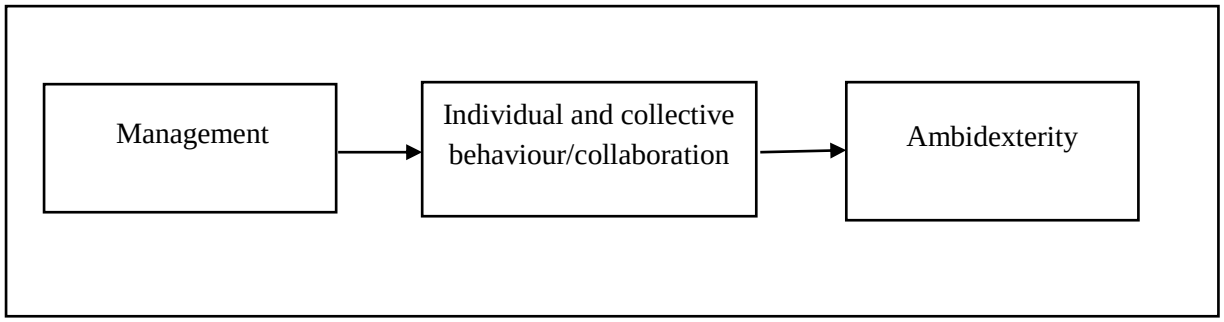

Figure 1. The framework that will be researched empirically for this study.

Researchers have indicated that there is a link between management and individual and collective behaviour and collaboration (Adler & Heckscher, 2013; Carmeli & Halevi, 2009; Ghoshal & Bartlett, 1994; Gibson & Birkinshaw, 2004). They mention that activities or events that are related to the frequency of feedback, open communication and a structure in which individual responsibilities are clearer will lead to collaboration. Likewise, behavioural factors and collaboration within a management team will lead to collaboration within an organization. It is explained by researchers that collaboration could lead to ambidexterity through the dimensions of discipline, stretch, trust and support (Carmeli & Halevi, 2009; Ghoshal & Bartlett, 1994; Gibson & Birkinshaw, 2004). For that reason, figure 1 is the model that is being used for this study. How this model is explained by current literature, will be demonstrated in this section.

1.1 Focus on either innovation or exploration or focus on both simultaneously?

According to Adler and Hecksher (2013) work is becoming increasingly knowledge-intensive and solutions oriented. This is because the interactive co-production of services is replacing mass production. Moreover, competition has grown more dynamic, less predictable and more global. As a result, organizations have to respond to these changes by focusing on exploration and exploitation at the same time to be successful. This is called 'organizational ambidexterity'. Adler and Heckscher (2013) and Gibson and Birkinshaw (2004) define this concept as an organization that can function on different contradictory dimensions simultaneously; exploration of new opportunities, innovation and flexibility versus exploitation of existing capabilities, efficiency and control. Especially hospitals are experiencing these paradoxical pressures for ambidexterity. Traditionally they were

accountable for the individual patient's health and maintaining a minimum acceptable level of quality, but they are increasingly being held accountable for the health of whole patient populations, costs and quality outcomes. At the same time they have to improve and maintain at least current levels of performance (Adler, 2003). Therefore, hospitals are expected to become ambidextrous.

Still, it was believed that organizations could be focussing on either one of these activities as the activities ask for opposing business characteristics (Adler, Goldoftas & Levine, 1999; Cameron & Quinn, 2011; Gifford et al., 2002; Quinn & Rohrbaugh, 1983; Thompson, 1967). More recently, it is believed that once non-ambidextrous organizations focus on just alignment, activities are geared toward improving performance in the short term. When organizations focus on adaptability, the activities are organized around performance on the long term. Either way, once the focus is at only one kind of activities, it will be at the expense of the other (Adler & Heckscher, 2013; Gibson & Birkinshaw, 2004; Gupta, Smith & Shalley, 2006; March, 1991; Moreno Luzon & Valls Pasola, 2011; Raisch et al., 2009).

Still, few is known about how hospitals are currently dealing with the possibly paradoxical pressures. Thereby, there seem to be different perspectives on how it might be accomplished in general.

1.2 A link between collaboration and organizational ambidexterity

Two perspectives on how ambidexterity could be accomplished can be distinguished in current literature; a structural perspective and a contextual perspective. Researchers that support the structural perspective argue that managers of an organization should create separate business units that are focussed on either innovation or exploration (O'Reilly & Tushman, 2011). According to them, this could be done through decentralization and differentiation, for example. Researchers who have a contextual perspective on ambidexterity state that exploration and exploitation can be achieved simultaneously within one business unit. This could be done by building a context that encourages individuals to make their own judgements as to how they divide their time between conflicting demands for innovation and exploitation. Through creating this encouraging context, individual and collective behaviour and collaboration can be shaped (Gibson & Birkinshaw, 2004; Carmeli & Halevi, 2009; Adler, Kwon & Heckscher, 2008; Adler & Heckscher, 2013).

Adler and Heckscher (2009) connect these different perspectives by saying that exploration and exploitation can be organized in different ways, but have to be integrated at a

certain point. They state that collaboration is needed for an organization in order to have a higher performance. Therefore, an open and flexible form of trust is necessary; 'collaborative trust'. This means that employees are committed to fulfilling the organization's purposes and to develop best working practices (Adler & Heckscher, 2009; Adler, 2001, Adler, Kwon & Heckscher 2008). This perspective will be used for this study and it will be taken into consideration that structures might differ. Nonetheless, these studies did not concentrate on the healthcare sector. Ambidexterity was studied in a more general way and only a thin line of the connection between collaboration and ambidexterity was found. Moreover, little is described about what this collaboration exactly looks like. More empirical research is needed to study this connection and to find out more about this connection within the (Dutch) healthcare sector.

Although the perspectives on how ambidexterity might be accomplished differ to a certain extent, researchers agree that management plays a key role in creating collaboration and conditions for ambidexterity (Black et al., 2006; Ghoshal & Bartlett, 1994; Gibson & Birkinshaw, 2004; Carmeli, 2008; Carmeli & Halevi, 2009).

1.3 The role of managers in creating collaboration and organizational ambidexterity

So far, little research has focused how managers can instil ambidexterity in their organization. Only few studies examined the prerequisites. Researchers in this field acknowledge that management teams should play a role in enabling and developing conditions for ambidexterity (Black et al., 2006; Ghoshal & Bartlett, 1994; Gibson & Birkinshaw, 2004; Carmeli & Halevi, 2009; Raisch & Birkinshaw, 2008). Ghoshal and Bartlett (1994) mention key events and actions that affected the four dimensions *'discipline', 'stretch', 'trust',* and *'support'* within a certain organization. They state that through these dimensions individual initiative, mutual cooperation, collective learning and ambidexterity could be accomplished. However, this research was only done within one organization and might not be applicable to the healthcare sector.

The dimension of *'Discipline'* is about influencing the behavioural outcomes of members of the organization through control mechanisms (Ghoshal & Bartlett, 1994; Gibson & Birkinshaw, 2004). It could be built through clear standards, so individual responsibilities and expectations are clearer. In this way, collaboration becomes easier and meetings can be more open and honest when discussing outcomes. This contributes to having strong shared norms and values. Therefore, people become mobilized to manage through direct dialogue

and become motivated to show organizational citizenship behaviour (Adler & Heckscher, 2013).

This is also related to the second dimension; '*stretch'*. This is primarily about (stretching) targets and how an environment is created in which individuals voluntarily stretch their own standards and expectations (Ghoshal & Bartlett, 1994; Gibson & Birkinshaw, 2004). Creating or having a shared ambition and a collective identity could facilitate this dimension and could lead to collaborative trust (Ghoshal & Bartlett, 1994; Adler & Heckscher, 2013). Therefore, a business unit should be freed from interdependencies through specialization and integration for building stronger links and creating room for horizontal integration and participation (Ghoshal & Bartlett, 1994; Adler & Heckscher, 2013).

The dimension about mutual *'trust'* is believed to contribute to the spirit of mutual cooperation (Adler, 2001; Adler & Heckscher, 2013). Three contributing factors for trust were found: the perceived fairness and equity in decision making processes based on objective data instead of individual deals, involvement of people in decisions that affect their work and having professionals instead of generalists in the lead who possess the required capabilities. This could improve trust in one's capabilities and skills as well, which could stimulate collaborative trust (Ghoshal & Bartlett, 1994; Adler & Heckscher, 2013).

The dimension of *'support'* is about managerial support and mutual support in the line of an organization. Access to resources and/or sharing of knowledge with other business units or outside the organization seem to be very important. Also, guidance and help from managers for employees to create collaboration matters. In this way, managers can mobilize employees for reaching their goals and employees have more autonomy for taking initiatives. Therefore, managers should be less focussed on control and the line should possess a certain level of autonomy (Ghoshal & Bartlett, 1994; Carmeli & Halevi, 2009).

A balance between these four dimensions should be found as they can sometimes be paradoxical. Trust and support contribute to adaptability and discipline and stretch to alignment (Ghoshal & Bartlett, 1994; Gibson & Birkinshaw, 2004). Ghoshal and Bartlett (1994) also studied actions and events that could affect these dimensions. In general, the activities they studied include investments in a higher frequency of feedback, open communication and a structure in which individual responsibilities are clear (Ghoshal & Bartlett, 1994). Some of the actions seemed to affect more than just one dimension. Furthermore, their study shows that organizations with more consistent management had a higher capacity for ambidexterity and were more successful than the organizations with less

consistent management. Still, their study did not explain how the key events could lead to collaboration.

Yet, Carmeli and Halevi (2009) studied how top management teams could enable organizational ambidexterity. They zoomed in on the behavioural component of how behavioural integration within a top management team could lead to behavioural complexity. Their research implicates that managers can influence collaboration and ambidexterity. According to them, this relationship is moderated by discipline, stretch, trust and support (Carmeli & Halevi, 2009).

Behavioural integration is created through frequent information sharing that will lead to group decision making instead of individual decision making (Black et al., 2006; Carmeli 2006; Carmeli & Halevi, 2009; Lubatkin et al., 2006) . Also collaboration, which is described as *"the presence of mutual influence between persons, open and direct communications and conflict resolution, and support for innovation and experimentation"* (Carmeli & Halevi, 2009, p. 210), could enable a management team to exploit complementary resources and skills (Carmeli, 2008). This could increase their behavioural complexity: the portfolio of roles they can perform effectively and give the right responses in the right situations. Earlier studies showed that managers who are able to perform different or competing roles in different situations are perceived as more effective. That is because then they can create ambidexterity through performing roles that foster either exploration and exploitation (Black et al., 2006; Carmeli & Halevi, 2009; Denison et al., 1995; Hart & Quinn, 1993; Satish, 1997). Likewise, behavioural integration and complexity will foster commitment, participation, collaboration, innovation and organizational citizenship behaviour (Black et al., 2006; Carmeli & Halevi, 2009; Adler & Heckscher, 2013).

Nonetheless, it remains unclear as to how management teams may contribute to creating collaboration for an ambidextrous organization and through which mechanisms this works. All these thin or missing links considered can be concluded that more empirical research is needed to find out more about the links between managerial actions, collaboration and ambidexterity.

2. Method

2.1 Setting

Because in The Netherlands health insurers become increasingly demanding towards hospitals and because the costs for healthcare for Dutch citizens are rising, it is necessary for hospitals to organize healthcare as cost-effective as possible and to be innovative at the same time. Especially hospitals in the Netherlands are an interesting field for research, since a lot of innovation pressures are experienced in this area. Many hospitals are working on integrated care and gradually they are implementing the principles of Value-Based healthcare, which asks for even more integration of innovation and exploitation. The Value-Based Healthcare method aims to maximize the care and value for patients through innovation or exploitation of current processes and reducing costs. St. Anna hospital, a small regional hospital, has started this year to gradually implement care pathways based on the principles of Value Based Healthcare. For being successful, different parties and departments have to collaborate to optimize the care for specific patient groups with specific medical conditions. To find out more about how managers influence collaboration within the hospital and how collaboration leads to simultaneously optimizing care and reducing costs, this research has been conducted within the St. Anna hospital.

The St. Anna Hospital

The St. Anna hospital is part of the St. Anna Zorggroep, in which also four residential care centers and a medical sports center are included. It is a small regional hospital in the Dutch town Geldrop. It has about 1400 employees, among whom a medical staff consisting of 90 professionals. The hospital is focussed on a personal approach toward patients and delivers broad basic care (St. Anna Ziekenhuis, 2016). In 2014, a cardiologist came up with the idea to implement Value Based Healthcare in the hospital. In December 2016, the project has started to implement five Value Based Care pathways for the orthopaedics, cardiology, lung care, dermatology and surgery departments. In 2017 it is planned to start up five more of these pathways and on the long term to implement the principles of Value Based Healthcare throughout the entire hospital.

2.2 Method

Qualitative methods have been applied to find empirical data on how managers influence collaboration and ambidexterity in hospitals. Besides, to find out how social meaning is shaped and how social processes work, such as collaboration and influencing collaboration, an emic-approach has been used (Mortelmans, 2009).

For finding an answer to the research question, individual interviews have been conducted in which management, collaboration and ambidexterity have been the core concepts. An example of an interview question is: *'How do you think that management could contribute to collaboration within the organization?*', or: *'Which techniques do you use in order to create collaboration within the organization?'*. The concepts that were mentioned in the theoretical background were used as a focus in the topic lists. First has been focussed on how organizational ambidexterity takes place and under which conditions organizational ambidexterity may arise, then on what collaboration is, how it may lead to organizational ambidexterity and on what the prerequisites for collaboration are. Lastly has been focussed on what kind of actions and techniques can be used to create collaboration within the hospital. In order to operationalize these theoretical concepts, respondents were asked to explain what they mean by the theoretical concepts and to complement their answers with practical examples.

The interviews were semi-structured and have been conducted with two managers and three healthcare professionals with coordinating roles. They were asked about their strategies and thoughts concerning creating collaboration and ambidexterity. Also, two healthcare professionals were interviewed to find out how the behaviour, strategies and techniques are being perceived by them or what they need to be able to collaborate and create ambidexterity. Healthcare professionals with coordinating roles were also asked these questions. Additional interviews with five experts in the field of Value Based Healthcare have been conducted as it is interesting to find out more about the possibilities of hospitals to create collaboration and become ambidextrous and to compare St. Anna hospital to other hospitals. This has had a positive influence on the external validity of this research (Mortelmans, 2011).

Interviewing different people in different positions can have a positive influence on the objectivity of the research. Moreover, the researcher tried to adopt an empathetic mind-set and was open to different opinions, because a proper level of objectiveness has a positive influence on the generalizability and thus the external validity of this research (Mortelmans, 2011). However, because this research is conducted in one hospital, external validity might be

threatened. Therefore it is not possible to generalize the results. By anonymizing the interviews was tried to make respondents feel safe to explain their thoughts instead of giving socially desirable answers. Moreover, this was avoided by asking questions in certain different ways. Hence it is tried to influence the internal validity of the study positively (Mortelmans, 2011).

After having had and transcribed the interviews, a conversation analysis has been done on the outcomes of the interviews. Because the interviews were semi-structured and were based on the literature, a deductive analysis had been set up. However, new themes were found from the empirical data. Therefore a combination of inductive and deductive methods have been used. The analysis has been executed by combining matching answers, experiences and opinions and arrange them to different categories. As a result, common visions, linkages and conclusions have been found. These conclusions are to a certain extent connectable to the theoretical framework which has led to an answer to the research question.

3. Results

3.1 What is organizational ambidexterity and how can it be accomplished?

Organizational ambidexterity was found to be fundamental within the hospital for maximizing the quality of care for patients, attracting patients, being able to compete and for getting contracted by insurers as they expect from hospitals to deliver a certain degree of quality of care. The answers of respondents concerning the question what ambidexterity includes can be divided into two themes. The first one is that they define organizational ambidexterity as a process. The second theme is about the tensions that arise between exploration and exploitation, which is also about the division of tasks within teams and the organization.

3.1.1 Organizational ambidexterity is a process

Many respondents agreed that the hospital cannot only focus on exploration or just on exploitation. They believe that innovation and exploitation go hand in hand and cannot be separated from one another. Once the organization only focusses on exploitation, it will fall behind compared to other hospitals in the environment. This could lead to a loss of patients and not getting contracted by health insurers anymore. On the other hand, when the organization focuses on just innovation, it could lead to a loss of quality of care. It was explained that the organization should also focus on optimizing innovations and thus exploiting the innovation.

Many employees in the St. Anna hospital are continuously innovating and exploiting. Especially the managers and professionals with coordinating roles are continuously busy keeping the machine running and, as they call it: 'fire fighting'. They try to detect where problems arise, solve them and take care of that it will not happen in the future anymore. This could be done by writing a protocol for it and standardize the process, for example. This refers to exploitation.

Additionally, respondents explained that it is essential to consecutively put the focus on either innovation or exploitation:

> *"... and if you would only do new things ... so we could be doing all kind of tricks, but we do not control them and we have not developed them well, then you are also doing something wrong."*
> (Professional 1)

This professional points out that it is crucial to exploit innovations. Therefore, every innovation calls for an exploitation. It was told that it can become quite hard to exploit changes in the process when innovations follow up too fast. Therefore it matters to innovate and exploit consecutively. This finding and the remark that managers are constantly analysing and optimizing processes indicate that organizational ambidexterity is more an ongoing process than something static. This is a quite striking finding as it does not connect to what is claimed in other studies. Gibson and Birkinshaw (2004) mentioned in their article that once the focus is at only one kind of activities, it will be at the expense of the other. It appears however from the empirical data that focussing on both activities simultaneously will be at the expense of both activities. This finding is also in contrast with studies that do not support the theory on organizational ambidexterity. These explain that it is only possible for organizations to focus on just one kind of activities as innovation and exploitation ask for opposing business characteristics (Quinn & Rohrbaugh, 1983; Gifford et al. 2002). This does also not seem to be the case in the St. Anna hospital. However, it was found that there can be tensions between the need to both explore and exploit.

3.1.2 Tensions and obstacles

At this moment it is tried to implement the value based healthcare method within the hospital, which is a new and innovative way of looking at the processes. It puts focus on how more value can be added for patients. This might reduce the costs in the long run. The focus of managers and specialists can sometimes differ, but this does not have to be a problem, as this manager explains:

> *"…, they go hand in hand, because a specialist says for example: I want a new device. Through this device I can do more, so it is more efficient, or the manager says: It has to be more efficient and then the specialist says: Okay, then I need this and that …"*
> (Manager 2).

This example shows that through collaboration between the manager, whom is more focused on exploitation, and the professional, whom is more focused on innovation, it is possible to integrate innovation and exploitation. On the other hand, these differences can be an obstacle. That is, for example, because professionals work mostly together with specialists from their own medical field and come up with innovations for their own field. Managers, however, have to monitor the budget of the whole organization. They cannot always fulfil the wishes of specialists, because there is not enough budget or because the ideas are contradictory to the

interests of other specialists. This indicates that there can be tension between the need to innovate and the need to exploit.

There are no separate business units for innovation and exploitation in the St. Anna hospital. Professionals focus individually on both innovation and exploitation and managers mostly focus on exploitation. However, differentiation is visible within this organization to a certain extent, because different departments are built around different professions. Although, professionals are not completely free in innovating and exploiting, because they have to share resources. This could lead to tensions on its turn. Therefore, it does not seem that a certain structure has been built in the organization to accomplish ambidexterity as it was explained by advocates of the structural perspective (O'Reilly and Tushman, 2011).

Nevertheless, how ambidexterity is organized in the St. Anna hospital does resemble with what advocates of the contextual perspective say (Gibson & Birkinshaw, 2004; Carmeli & Halevi, 2009; Adler, Kwon & Heckscher, 2008; Adler & Heckscher, 2013). They state that organizational ambidexterity can be achieved through building a context that encourages individuals to make their own judgements as to how they divide their time between conflicting demands for innovation and exploitation. As professionals possess a high degree of autonomy, they can decide for themselves to a certain degree how to divide their time among the activities. In this way, individual and collective behaviour can play a bigger role for creating ambidexterity. Although, it should be kept in mind that their ideas might be in conflict with organizational goals, external demands, or other specialists they have to share resources with. This could lead to capacity problems. Thus, professionals are not completely free to divide their time between innovation and exploitation.

A solution to this tension respondents mentioned is to have shared goals and to collaborate in order to achieve this goal. Within the Value Based Healthcare project, multidisciplinary teams are built around a patient population with a specific medical condition. Certain patient relevant outcomes were set up for optimizing the care for those patients, which can be explained by what is said by Adler and Heckscher (2009). They state that collaboration could lead to a higher performance. This could mean that ambidexterity within hospitals could be built around shared goals within teams that focus themselves on a specific product or service through collaboration.

3.2 Collaboration: Interdependence, mutual goals and efficiency

Research suggests that collaboration matters for becoming ambidextrous, but so far, it is not completely known how this works. Therefore, respondents were asked about their understanding of the concept collaboration, what it contains, with whom they collaborate and how this can help in order to become ambidextrous. When they asked what is needed to work ambidextrous, they mentioned collaboration or certain aspects of collaboration. It is almost impossible within the St. Anna hospital to implement an innovation or to exploit a process as the ones who are who are involved with that process or the ones who have to provide resources for the implementation are not cooperating. In this section will be elaborated on how collaboration was described, what the effects can be and on what this looks like in the St. Anna hospital.

3.2.1 What is collaboration?

When respondents were asked what collaboration means to them, they found it hard to give a concrete answer. Most answered that it means 'working together on something'. However, they were able to mention a lot of aspects about what they need for collaboration, things that could ease collaboration and the effects of collaboration. In summary, their answers concern the themes interdependence, mutual goals, and efficiency.

A main reason why people within the organization should be working together is because they are involved in the same processes or because they share resources. Therefore, they are interdependent. Professionals mostly discuss their idea with other professionals in their team to see whether they will support the idea. Once the group of professionals has made a decision, they will sometimes involve managers to see whether implementing the idea is achievable in terms of money and personnel. This can also be divided among other departments. This implies that from the collaboration between professionals innovations and exploitations can also be initiated. For discussing medical content about patient groups that are shared with other professionals, professionals involve them to make agreements about the matter in question. Nevertheless, there is not always so much collaboration with other departments:

> *"Healthcare is vertically organized at this moment....the radiology organizes everything for themselves and the outpatient clinic organizes everything for themselves ... they all have a different planning and they are not in tune with one another…"*
> (Value Based Healthcare professional 3)

Therefore, having a mutual goal was found necessary for collaboration. By collaborating, that goal can be reached more easily. Especially within the Value Based Healthcare project, it is not about individual interests anymore, according to the managers. It is about the common goal to provide value for the patients. Patient relevant outcomes have been determined together and the common goal is to optimize those outcomes. Nonetheless, in order to reach that goal, compromises have to be made.

Collaboration is also about giving and taking, which was found to be easier in a smaller hospital such as St. Anna hospital instead of larger hospitals. This is because people know each other and less individual interests play part in the decision making process. It can be harder and take more time to compromise many different interests. Therefore, within a smaller organization such as St. Anna hospital, the decision making process is quicker and can therefore also be more efficient.

Even though managers, specialists and other employees have optimizing the care for patients as a common goal, their individual goals can sometimes be contradictory. Wishes from professionals to optimize the care for their patient population cannot always be granted by managers, because they can only allocate a certain amount of financial resources. So, even though managers would want to collaborate, they cannot always do so.

All these factors considered, it seems as if collaboration is not something static, but more some process in which parties sometimes do collaborate and sometimes they do not. Besides, collaboration between certain parties for innovation and exploitation only takes place when they are involved in the process.

Communication turned out to be a core aspect of collaboration. This is not just about open and transparent communication, but also about communicating in general; from discussing ideas with colleagues for creating support to discussing tasks with other departments or health organizations. One expert in the field of Value Based Healthcare told the following:

> *"What you often can see is that there is a lot of inefficiency… double procedures are executed. So double ECG's, double blood samples that are not connected…these are all quite expensive procedures, so it would be better if they are connected in a way."* (Value Based Healthcare professional 5)

This respondent explains that it is valuable to collaborate, because it could save costs and lead to more efficiency. The project of Value Based Healthcare can create opportunities for

innovation and exploitation when different specialists collaborate. Managers and coordinators of different departments do already collaborate more. They exchange staff when one department is overstaffed and the other is understaffed, for example. This can have a positive influence on exploitation of the processes and efficiency, as they are more flexible to changing demands of patients and support each other. In this way they can optimize the care for the patients in their departments. When collaboration is absent and innovations or exploitations are still going to be implemented, resistance might arise. Then it does not lead to more efficiency, as this manager explains:

> *"... they sit next to one another physically, but they won't do anything for each other. When the phone of the other rings, they won't pick up..."* (Manager 2)

3.2.2 Collaborative community?

The aspects of collaboration respondents mentioned, have a lot in common with the collaborative community Adler, Kwon and Heckscher (2008) described (table 1). One resemblance is because people (managers, specialists and employees) collaborate for innovations and exploitations when they are involved in the matter that is being discussed. Especially within the Value Based Healthcare project, managers, professionals and employees collaborate because they are interdependent on each other's services around the care for a patient with a specific medical condition. This relates to the organic division of labour as it was described by Durkheim (1997). Moreover, this collaboration goes even further. In regional networks, for example, care for patients with a specific medical condition is being discussed by members of general practices, hospitals and ambulance stations. Thereby, trust as described by the respondents, which will be explained in the next paragraph, is based on whether the other party is striving for the same shared goal and transparency in communication. This resembles the aspect of contribution, value rationality and honesty as explained by Adler, Kwon and Heckscher (2008). Furthermore, Adler, Kwon and Heckscher (2008) describe simultaneous high particularism and universalism within healthcare as responsibility for both an individual patient and community health. Normally, professionals and employees are responsible for each individual patient and now they are responsible for patients populations. This is especially the case within the Value Based Healthcare project as teams are built around patients with a specific medical condition. Moreover, the quality of care will be partly judged by the patient relevant outcomes for the whole group of patients with that medical condition that is being influenced by the involved parties. This seems to relate to universalism in the sense that the team carries responsibility for a whole group of

patients.

Therefore, it seems that collaborative communities are partly present and further composed within the St. Anna hospital. However it should be noticed that these communities might be more of an ongoing process than something constituted as explained previously.

	Gemeinschaft	Gesellschaft	Collaborative
Structure			
Division of labor (using Durkheim's 1997/ 1893 categories)	* Mechanical division of labor coordinated by common norms	* Organic division of labor coordinated by price or authority, or both	* Growth in organic division of labor coordinated by conscious collaboration
Nature of interdependencies	* Vertical dependence	* Horizontal independence	* Collaborative interdependence, both horizontal and vertical
Tie network structure	* Local, closed	* Global, open	* More global, open ties, as well as stronger local ties
Values			
Basis of trust	* Loyalty * Honor * Duty * Status deference	* Integrity * Competence * Conscientiousness * Integrity	* Contribution * Concern * Honesty * Collegiality
Basis of legitimate authority	* Tradition or charisma	* Rational-legal justification	* Value-rationality
Values	* Collectivism	* Consistent rational individualism	* Simultaneously high collectivism and individualism
Orientation to others	* Particularism	* Universalism	* Simultaneously high particularism and universalism
Orientation to self	* Dependent self-construals	* Independent self-construals	* Interdependent self-construals

Three forms of community. Reprinted from Adler, Kwon & Heckscher (2008).

Thus, collaboration between professionals and managers and between different departments are very relevant for executing innovations and exploitations. What is needed for collaboration and how the manager can play a role in this will be deliberated on in the next paragraph.

3.3 Managing ambidexterity

So far, little research has focused how managers can instil collaboration and ambidexterity in their organization. The empirical data showed that collaboration should be facilitated and supported by the management. Answers of the respondents were quite unanimously regarding to what is needed from management. However, it was found that management within this hospital is also ambidextrous. Dual management has been arranged in which the specialist is more focussed on innovation and the manager on exploitation. First will be zoomed in on actions management can undertake for collaboration and their roles will be explained. Subsequently, the dimensions through which collaboration and ambidexterity can be accomplished will be explained, including dual management. Thereafter a final model that could explain the relationship between management, collaboration and ambidexterity is presented.

3.3.1 Being able to perform different roles

Respondents were quite unanimously about the roles they assigned to managers for collaboration. As the knowledge of managers is broader in the field of policy making and because professionals do mostly not have the time to execute those tasks, managers should facilitate and support professionals in that field. Professionals also become or stay motivated to collaborate in innovations and exploitations of processes when they receive support from mangers. Therefore it is crucial to managers to think along and be constructive, as this professional indicates:

> *"…, but it can also work demotivating as there is always the same person who says no, or is to critical or sends you away with: "Improve your business plan.""* (Professional 1)

In order to involve the different parties and coordinate implementations, managers should be able to execute different feedback styles. These different roles are mostly explained as being able to respond to different types of people and being able to motivate the different types of people. For that reason, it is necessary to know about the culture within teams and the norms and values each individual carries. In this way, a manager can keep people involved and motivated to contribute to the shared goals. Sometimes, a more directive style is needed to get things done from people, but in other cases it is better to compromise with people in order to keep them involved. These answers can be understood using the insights from the theory of Carmeli and Halevi (2009), which states that collaboration can be reached through behavioural complexity. When managers are able to execute these different roles, resistance might also be avoided. This manager explains that when managers are not this flexible in their roles, resistance might arise:

> *"Yes, that could lead to resistance by some. Some specialist will say to managers: Yes, but he does that always in this way, or that does not help as he always wants to discuss it first and that is also about personal preference by specialists, because one specialist is more pragmatic than the other…"* (Manager 2).

This manager describes that specialists prefer different management styles. He shows an example in which a professional does not feel motivated to do something as he experiences a lack of support by a manager. Therefore, it seems that through a lack of behavioural complexity, people can become less motivated to show organizational citizenship behaviour or become less participative in developing ideas. Carmeli and Halevi (2009) state in their article that behavioural complexity could lead to this kind of behaviour from other people, but

it seems that once a manager is not able to show behavioural complexity, it could lead to the exact opposite.

Despite that, respondents describe that behavioural complexity from managers is essential, they also told that managers within the St. Anna hospital do have their own management styles. This shows that there might be a certain lack of behavioural complexity of some. This could explain why sometimes people become resistant in the collaboration with managers.

Collaboration and becoming ambidextrous could however be accomplished through different dimensions. Being able to perform different management styles can help managers to work through these different dimensions. This will be deliberated in the next section.

3.3.2 Dimensions through which collaboration could be accomplished

Ghoshal and Bartlett (1994) mentioned key events in their article that could affect the four dimensions *'discipline', 'stretch', 'trust',* and *'support'* within a certain organization. It is believed that through these dimensions behavioural outcomes (individual initiative), mutual cooperation, collective learning and ambidexterity could be accomplished. However, this research was only done within one organization and therefore it is unknown how if this information is also applicable to healthcare organizations. Moreover, their study did not explain how the key events could lead to collaboration. In the interviews it was tried to find out which managerial actions could lead to collaboration and how these actions could lead to collaboration. There seemed to be a lot of resemblance between the themes that were mentioned by Ghoshal and Bartlett (1994) and the themes that cover the answers of the respondents. The dimensions of *'discipline'* and *'stretch'* will be discussed in this section.

Within the value based healthcare project, the goal is to set patient related outcomes and to optimize these outcomes. This means that a common goal is created in which every member wants the best care for a patient. Accordingly, the discussion will be less about individual interests and more about what each individual can do to optimize those outcomes. Besides, it is also important to engage all the different parties that are involved with the patient with the specific medical condition in order to discuss how the care can be organized best in order to optimize the patient outcomes. Therefore, the involved parties will also know their responsibilities and how they can contribute to that common goal.

This can be explained through the dimension of *'discipline'*, as it is also related to influencing behavioural outcomes of members of the organization through control

mechanisms (Ghoshal & Bartlett, 1994; Gibson & Birkinshaw, 2004). The control mechanisms here are the patient related outcomes and the involvement of the people who can contribute to those outcomes. In this way, they can discuss and find out how they can contribute to that common set goal. As mentioned in the previous section, working toward a shared goal is a form of collaboration.

Moreover, the goal of the Value Based Healthcare project is not only to look at the patient outcomes and to improve those outcomes, but also to compare the outcomes of the specialists with each other. In this way, they can learn from one another in order to optimize those individual outcomes. Through this collective learning, ambidexterity could be accomplished.

This form of individual and collective learning can be explained the dimension of '*stretch'*, which is about stretching targets and how an environment is created in which individuals voluntarily stretch their own standards and expectations (Ghoshal & Bartlett, 1994; Gibson & Birkinshaw, 2004).

When people within the organization openly share they ideas and knowledge, others can learn from it. The orthopaedics of the St. Anna hospital organize science nights two times a year. During these science nights they present the results of their researches as well as new guidelines and protocols and how they can be used by them within the hospital. Thereby, when people are open to feedback and have an open communication they can learn from each other. A strong base of trust is therefore needed.

3.3.3 Dual management

'*Trust'* is believed to contribute to the spirit of mutual cooperation and is also a dimension that was found by Ghoshal and Bartlett (1994) (Adler & Heckscher, 2013). Also for trust, three contributing factors were found: the perceived fairness and equity in decision processes of the company based on objective data instead of individual deals, involvement of people in decisions that affect their work and having professionals in the lead instead of generalists. Having professionals in the lead could improve trust in one's capabilities and skills as well, which could stimulate collaborative trust. Within the Value Based Healthcare project, all parties that are concentrated around a patient with a specific medical condition are involved. Together, they decide the patient relevant outcomes and how they are going to improve these outcomes. As a result, the decision making process is more based on objective data. This can contribute to the perceived fairness and equity in the decision process.

In order to optimize collaboration, dual leadership is arranged in the St. Anna hospital.

This means that next to every manager, there is also a medical manager. This is not only the case because two companies are present within the hospital, but also to integrate medical knowledge and policy oriented knowledge. Another reason for having this structure is because specialists can create a lot of support among their colleagues, because of their medical knowledge. This is also a great success factor for an innovation or exploitation. If the idea is not supported by the professionals, employees will stop working accordingly at a certain point and the implementation will fail. This could be explained by the research of Ghoshal and Bartlett (1994). They found that having professionals in the lead could improve trust in one's capabilities and skills and that it could lead to collaborative trust. Therefore it is necessary for managers and specialists to collaborate closely.

However, more factors seemed to play a role in trusting managers and to become benevolent in collaboration. Respondents mentioned that trust can be built by open communication and feedback and knowing in what relationship people stand to one another. Moreover, trust and benevolence also seems to be based on trust in the knowledge of a manager. This is also about trust in one's skills and competences as explained by Ghoshal and Bartlett (1994).

It was also found essential for managers to be present on the work floor. In this way, the manager knows more about is going on there. This could create trust from the employees in the knowledge of the manager and trust in that the manager can respond well to what is needed on the work floor. This is also related to behavioural complexity. By being present on the work floor, a manager is more approachable, which makes it easier to have open communication. This can also contribute to knowing one another. People are more motivated to do something for someone when they really know the person. Moreover, they are more aware of the intentions of the other party. Therefore they might know better whether the other person is pursuing the same goals and, is being open about it and is not holding back information. It was found that in this way, constructive discussions can be held in order to come to good solutions for innovations and ideas for exploitation. This can also be explained by the concept of collaborative trust. Through being approachable, having open conversations and knowing one another, people are more open to collaboration, as explained by Adler and Heckscher (2009).

Dual management can be hard sometimes as the focus and responsibilities of managers and professionals are different to some extent. In some cases, this was found to be an obstacle for the innovation and exploitation process. Nonetheless, specialists told that they need

managers for coordination, support, policy preparation and execution of the plans as specialists are less educated in policy making and –execution. Moreover, managers carry the responsibility for the organizational budget and therefore have the task for dividing resources among departments. Accordingly, they are the ones from whom support is needed for implementing innovations or exploitations. Professionals mentioned that not getting the resources for some ideas that they wanted to implement, has led to the failure of implementing them. This relates to the dimension of *'support'* by Ghoshal and Bartlett (1994). It was found that managers can create collaboration by providing access to resources, mobilize employees in order to reach their goals and give them more autonomy for taking initiatives.

3.3.4 Final model

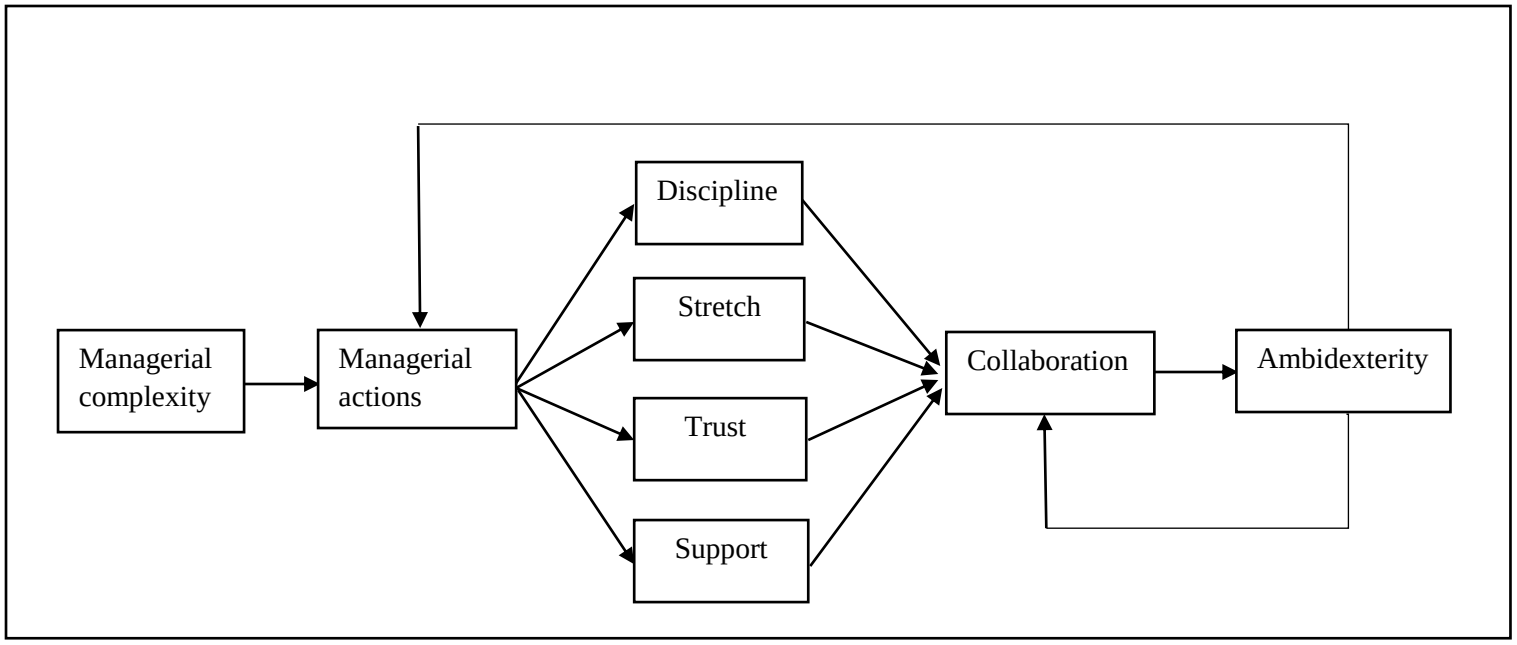

Figure 2. The final framework that describes the findings of this research.

Figure 2 summarizes the key features that were mentioned within the theoretical framework and is extended by the empirical outcomes. As not so much information was found about behavioural integration in the findings, it has been left out of the model. Therefore it starts with behavioural complexity of managers in which managers are able to perform different roles. Through these different roles, managers are able to perform several managerial actions. These managerial actions trigger collaboration that can lead to innovation and exploitation, thus ambidexterity, through the dimensions of discipline, stretch, trust and support. The process of ambidexterity, in which innovating and exploiting are executed consecutively, ask

for certain types of managerial actions. For example, when an innovation has to be exploited, managers can coordinate this through the dimension of discipline. It was also found that in some cases, professionals are somewhat more self steering in innovating and exploiting processes and do not involve managers so much. In some cases, support from managers is not necessarily needed. Therefore, innovations and exploitations can also be accomplished through collaboration.

4. Conclusion and discussion

4.1 Main outcomes and answer to the research question

The answers of the research respondents show how behavioural complexity of managers and as a result the managerial actions can influence collaboration and ambidexterity through the dimensions of discipline, stretch, trust and support. Therefore it is crucial for managers to be able to play multiple roles that sometimes call for diverse and competing behaviour and to be able to give certain responses in certain situations. To a certain extent, this relationship was expected based on current literature. On the other hand, it is found that the concepts of 'collaboration' and 'ambidexterity' are not static concepts. Based on the empirical data, collaboration and ambidexterity are ongoing processes. Collaboration is being stimulated in different ways through 'discipline', 'stretch', 'trust', and 'support' or by employees themselves and collaboration can also stimulate ambidexterity in different kinds of ways. Ambidexterity was found to be more of a process, because innovation and exploitation can sometimes be more consecutive than that both activities are executed simultaneously. This process could also stimulate collaboration on its turn. Professionals try to exploit their processes and search for innovations that could help them for optimizing their processes. Once an innovation has been found, this innovation has to be exploited on itself, because focussing on too many things simultaneously could lead to a lower quality of outcomes. Therefore, different types of collaboration might be needed. These findings are quite striking. Accordingly, more research is needed to find out what the effects can be of innovating and exploiting consecutively.

Moreover, because professionals are more geared towards innovation and managers are more focussed on exploitation and both parties can be mutual dependent, collaboration is fundamental. In order to integrate their focuses, dual management has been organized. In this way, professionals are in the lead together with managers and they collaborate closely from their own expertise to organize ambidexterity. The dimension of trust in this collaboration is crucial as managers and professionals are mutual dependent. More importantly, this is about an open and flexible form of trust: 'collaborative trust', in which having a shared goal and believing that the other party strives for the same goal, and therefore transparency in communication are very crucial factors.

Thus, it is necessary to keep in mind that collaboration and ambidexterity are ongoing processes that are stimulated in different ways. In order to influence these dimensions, managers have to continuously perform different roles and different actions to establish collaboration and lead together with professionals organizational ambidexterity.

4.2 Discussion of the results

Overall, this study might has given some new insights to scientific and practical knowledge. A large part of what is written about ambidexterity, collaboration and the role of management was applicable to the setting of a Dutch hospital. However, the results have shown that collaboration and ambidexterity are ongoing processes and that trust might play a bigger role than expected. Without collaboration, it would become almost impossible to implement innovations and exploitations as all parties are interdependent. Collaboration has shown to be influenced by managers through openness and approachability and therefore trust, besides having a common goal. Having professionals in the lead together with managers and having short communication lines could be crucial in this. This is advisable for other hospitals as well. Besides, not having too many management layers could also contribute to collaboration and therefore ambidexterity. Moreover, this study has opened up the relationship between management, collaboration and ambidexterity. Therefore, more is known about how collaboration is influenced by management and how ambidexterity arises under collaboration.

However, a point of criticism is that the results of this study might not be consistent over time. Once the same research will be done at another point in time, the results might differ. That is because the hospital is getting merged with a larger hospital and therefore the organization is going to change. Thereby, the St. Anna hospital just started to implement Value Based Healthcare. The views of the respondents might differ from their future views as the results of the project are not completely visible so far.

The external validity might also be affected, because the study has only been executed within one relatively small peripheral hospital. It is uncertain whether the results of this study are applicable to larger institutions, especially as respondents mentioned that the success of their close collaboration is for a great part due to the short communication lines and knowing and trusting the people they have to collaborate with. Within larger hospitals, the communication lines are longer and it is harder to know all the people that professionals have to collaborate with, according to them. On the other hand, within larger and especially academic and training hospitals, there is more time and money available for innovation. Nevertheless, the results might differ and therefore the external validity might be threatened.

For follow-up studies it would therefore be interesting to analyse how far the size of the organization and the structure of the organization could cause differences in the collaboration within teams as well as the relationship with the management. Another interesting study would be to find out what the effects are of having professionals in the lead on collaboration and ambidexterity and set up a more comparative research.

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Appendices

Appendix 1 Interview for health professionals

General questions

1. How long have you been working here in this position?

2. Why did you come to work in this organization? How many years of experience do you have in your field?

3. How many companies have you worked for?

Ambidexterity

4. To which extent are you exploring or exploiting your current processes simultaneously?

5.1 What does this look like in practice, or what would this look like in practice?

5.2 In which way are you trying new things? What are you doing to innovate?

5.3 What do you do to improve or standardize current processes? In which way are you doing this?

5.4 How are the people in your team involved with innovating and exploiting?

5.5 How is the collaboration for innovation and exploitation organized? Is everyone doing it by themselves or are only a few people collaborating for it or is the whole team doing it?

6.1 How has this been organized for you in practice? (one way is that some people are completely focussed on innovating processes and others on continuous improving current processes. the other way is that everyone divides their own time between improving current processes and innovating?

6.2 Do you think that there is more emphasis on innovation or on exploitation in your work?

7.1 What is the importance of simultaneously exploring and exploiting according to you?

7.2 What could be the effects of this way of working for you organization?

8. What does this way of working mean for your work?

9. How do you think that the Value Based Healthcare care pathways could contribute to this way of working?

10.1 To which extent is it possible to reach ambidexterity, according to you?

10.2 What do you think you need to accomplish that?

10.3 What are the prerequisites for becoming ambidextrous according to you?

10.4 Which problems arise when you would want explore and exploit more (simultaneously)?

Collaboration

11. How do you describe collaboration?

12.1 To which extent do you think that collaboration could lead to exploring and exploiting simultaneously?

12.2 What is the importance of collaboration for exploring and exploiting simultaneously according to you?

12.3 Which factors of collaboration do you think contribute to exploring and exploiting simultaneously?

13. What does this look like for you in practice? Do you have an example?

14. How could this way of working be accomplished without collaboration according to you? Is collaboration a prerequisite?

15. Which types and parts of collaboration and with whom is collaboration needed in order to accomplish this way of working?

16.1 What are the factors that could lead to good collaboration according to you?

16.2 What are the factors that stimulate your collaboration?

The role of management

17. How do you think that management could play a role in facilitating and accomplishing collaboration?

18.1 How do you think the value based healthcare project can contribute to that?

18.2 To which extent can the value based healthcare project, in which the specialist is in the lead contribute to making decisions as a group, according to you?

18.3 To which extent do you think that you are more influent to the decision making processes through this project?

19.1 To which extent to you think that the managers in your organization are consistent?

19.2 To which extent do you think that this consistency can contribute to exploring and exploiting simultaneously?

20. What do you need from managers in order to collaborate?

21. To which extent do you think that frequency of feedback can influence collaboration? Can you give an example?

22. What is the importance of open communication from the management according to you? To which extent can that influence collaboration? Could you give an example?

23. Do you feel committed to this organization at the moment?

24. What are the factors that influence your commitment?

25. How do you think that the management can influence your commitment?

26. To which extent do you feel that you are being involved with certain decision making processes?

27. To which extent do you feel like you can be open and honest towards the management?

28. How is the collaboration with the management going in the organization?

- What are they doing to make the collaboration as nice as possible?

- What are the things that hold you back?

29. Were there certain subjects in this interview not mentioned of which you think it is important to consider for the research, or is there any information you would like to share concerning my research?

Appendix 2: Interviews for managers and VBHC professionals

Note: the VBHC professionals were asked the same questions. However, these questions regarded to what they observed from managers and professionals instead of what they do themselves.

General questions

1. How long have you been working here in this position?

2. Why did you come to work in this organization? How many years of experience do you have in your field?

3. How many companies have you worked for?

Ambidexterity

4. To which extent are you exploring or exploiting your current processes simultaneously?

5.1 What does this look like in practice, or what would this look like in practice?

5.2 In which way are you trying new things? What are you doing to innovate?

5.3 What do you do to improve or standardize current processes? In which way are you doing this?

5.4 How are the people in your team involved with innovating and exploiting?

5.5 How is the collaboration for innovation and exploitation organized? Is everyone doing it by themselves or are only a few people collaborating for it or is the whole team doing it?

6.1 How has this been organized for you in practice? (one way is that some people are completely focussed on innovating processes and others on continuous improving current processes. the other way is that everyone divides their own time between improving current processes and innovating?

6.2 Do you think that there is more emphasis on innovation or on exploitation in your work?

7.1 What is the importance of simultaneously exploring and exploiting according to you?

7.2 What could bet the effects of this way of working for you organization?

8. What does this way of working mean for your work?

9. How do you think that the Value Based Healthcare care pathways could contribute to this way of working?

10.1 To which extent is it possible to reach ambidexterity, according to you?

10.2 What do you think you need to accomplish that?

10.3 What are the prerequisites for becoming ambidextrous according to you?

10.4 Which problems arise when you would want explore and exploit more (simultaneously)?

Collaboration

11. How do you describe collaboration?

12.1 To which extent do you think that collaboration could lead to exploring and exploiting simultaneously?

12.2 What is the importance of collaboration for exploring and exploiting simultaneously according to you?

12.3 Which factors of collaboration do you think contribute to exploring and exploiting simultaneously?

13. What does this look like for you in practice? Do you have an example?

14. How could this way of working be accomplished without collaboration according to you? Is collaboration a prerequisite?

15. Which types and parts of collaboration and with whom is collaboration needed in order to accomplish this way of working?

16. which types of collaboration are present in your organization?

17.1 in which way is collaboration being stimulated in your organization?

17.2 What are the factors that could lead to good collaboration according to you?

17.3 What are the factors that stimulate your collaboration?

The role of management

18. How do you think that management could play a role in facilitating and accomplishing collaboration?

19.1 How do you think the value based healthcare project can contribute to that?

19.2 To which extent can the value based healthcare project, in which the specialist is in the lead contribute to making decisions as a group, according to you?

19.3 To which extent do you think that you are more influent to the decision making processes through this project?

20.1 To which extent do you think that you as a manager and the management in your organization is consistent?

20.2 How do you think this consistence can contribute to simultaneous innovating end exploiting?

21. What is needed to stimulate collaboration in the organization, according to you?

22. To which extent do you think that the frequency of feedback can stimulate collaboration? Could you give an example?

23. What is the importance of open communication from management? To which extent can this influence collaboration according to you? Could you give an example?

24. Do you feel committed to this organization at the moment?

25.1 How can you and/or other managers influence commitment of other employees?

25.2 How is commitment of employees being influenced by the management at the moment?

26.1 To which extent do you feel that you are being involved in certain decision making processes?

26.2 To which extent are employees being involved in certain decision making processes?

27. Do you feel like you can be open and honest in the communication with other employees?

28. How is the collaboration between management and employees going in this organization?

- What do you do to create a nice collaboration?

- What are the problems that arise in the collaboration?

29. Were there certain subjects in this interview not mentioned of which you think it is important to consider for the research, or is there any information you would like to share concerning my research?

Appendix 3: Respondents Table

Respondent	**Description**
Professional 1	This cardiologist was interviewed on the 10th of May 2017 has 10 years of experience in his field and has had some experience as physician assistant in an academic setting.
Professional 2	Cardiologist 2 was interviewed on the 11th of May 2017. He has been a cardiologist in the St. Anna hospital for seven years already. Before he came to the St. Anna hospital, he studied in the academic hospital of Maastricht.
Professional 3	Professional 3 is a coordinating nurse who has been interviewed on the 15th of May 2017. He has been work as a nurse in the St. Anna hospital since 2001. Before that, he worked in another hospital nearby.
Professional 4	This is a scientist who supports the orthopaedic department and is a project leader for the value based healthcare project. He has been interviewed on the 23rd of May 2017 and has been working for the hospital for 23 years. He has a background in kinesiology and physiotherapy.
Professional 5	This cardiologist was interviewed on the 23rd of May 2017 has worked in the St. Anna hospital for 9 years. In the year before he worked in an academic hospital in Maastricht. At this moment, he is also the leading specialist in the value based healthcare pathway for the cardiology department.
Professional 6	This Cardiologist, member of the steering group of the value based healthcare project and chairman of the MSB was interviewed on the 24th of May 2017. He has been a cardiologist in the St. Anna Hospital for 10 years, member of the steering group for almost three years and chairman for five years. On beforehand he has worked as a cardiologist in an academic hospital in Rotterdam.
Manager 1	This department head for outpatient clinics was interviewed on the 15th of May 2017. She has five years of experience as a department head after she had been working as a consultant.
Manager 2	This manager was interviewed on the 24th of May 2017, is a department head for outpatient clinics and has six years of experience as a department head. He has a background in consultancy. Moreover, he is one of the project leaders of the value based healthcare project.
VBHC Professional 1	This person was interviewed the 9th of May 2017 is a trainee in the St. Anna hospital and she has the task to make a value based care pathway for the dermatology department. She has a background in health sciences and this is her first job after graduating. Just as every other trainee, she has been working in the St. Anna hospital for six months.
VBHC	This trainee with a health science background was interviewed on the 10th of May

Professional 2	2017. It is her task to organize the Value Based Healthcare pathway for patients with COPD. Before she started the traineeship, she has had some experience with improving processes in other hospitals.
VBHC Professional 3	This trainee was interviewed the 10th of May 2017. His task within the St. Anna hospital is to create a value based healthcare pathway for the orthopaedic department. He has some experience from earlier internships with improving processes and this is his first job after graduating in health sciences.
VBHC Professional 4	This trainee with health science background has the task in the St. Anna hospital to create a value based healthcare pathway for debris within the surgery department. This is his first job after graduation. He has written his thesis about optimizing processes through the methodology of LEAN. He was interviewed on the 15th of May 2017.
VBHC Professional 5	This project leader of a regional Value Based Healthcare network for cardiology was interviewed on 22nd of May 2017. He is the project leader since the 1st of April 2016. He has some experience in leading projects before and has a background in kinesiology.