An explorative case study on the motivations for the possible adoption of the A3 approach within private company X

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ABSTRACT,

The practice of open strategizing has gained increasing recognition over the past decades. Open strategizing involves all relevant stakeholders within organizations in the process of formulating and implementing strategic plans. The inclusion of a wide variety of stakeholders in open strategizing processes is opposite to the traditional topdown approach in strategizing, which has been widely used for a period of multiple decades. Built on the key principles of open strategizing is the A3 approach to strategizing, initiated by Dr. H.J. Doeleman. The A3 approach has been widely adopted within the public domain, and it has proven to be effective for many organizations. However, a significantly lower adoption of the A3 approach is witnessed for private companies. An explorative case study was held at private company X to identify its motivations for the eventual adoption of the A3 approach. Additionally, two educational organizations that have implemented the A3 approach were interviewed to gain insight in their motivations for adopting the A3 approach and to evaluate their concrete experiences with this approach. The results of this study point increasing transparency, increasing participation, and increasing consistency as underlying motivations of private company X for the possible adoption of the A3 approach. These motivations show a certain degree of overlap with the motivations of educational organizations X and Y. These motivations also correspond with the core principles of open strategizing: transparency, inclusion, participation, and IT-enablement. However, future research is necessary to investigate the differences and similarities of motivations from public organizations and private companies for adopting the A3 approach. Furthermore, there was a focus on the influence of the presence of diagnostic control systems on the motivations for adopting the A3 approach. Results showed that diagnostic control systems are considered as a basic requirement for a new strategizing practice at private company X. In contrast, organizations X and Y indicated that they placed less value on the presence of diagnostic control systems in choosing a strategizing approach.

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1. INTRODUCTION

Over the past decades, a lot of research has been done on strategy related topics. Strategy formulation and implementation have proven to be difficult topics for organizations, and their interconnectivity makes that an improved understanding of both formulation and implementation leads to more effective strategies. The extensive research on strategy concepts led to the emergence of multiple, varying strategizing practices. This research focusses on the A3 approach for open strategizing, developed by Dr. H.J. Doeleman. Open strategizing is defined as "a bundle of dynamic practices that affords internal and external actors' greater strategic transparency and/or inclusion" (Hautz et al., 2017). The A3 approach is concerned with the creation of an A3 paper sized annual plan that is based on the mission and vision of an organization (A3 Company, 2022). Besides this, the A3 approach was built upon a wide range of relevant theory on open strategizing practices, and it has proven to be effective in large public organizations. According to initiator Dr. Doeleman, the A3 approach has been adopted by hundreds of organizations, mainly in the public domain. However, it seems that the A3 approach struggles to cover ground in the private domain. Although the advantages of the A3 approach are evident, it is unclear whether those advantages are the direct motivations for the adoption of the A3 approach. A clear reason for the difference in adoption between the public and private domain has not been identified yet. To gain more insights in the motivations for adopting the A3 approach, an explorative case study was held at private company X. Besides this, research has been conducted on the motivations that led to the adoption of the A3 approach at public educational organizations X and Y.

1.1 Research Objective

The overarching objective of this research is to analyze and get an understanding of the motives that influence private company X's choice to adopt the A3 approach or not. Since there is a large difference in adoption of the A3 approach between the public domain and the private domain, getting an understanding of a private company's motivations to either choose for A3 or not might provide new insights on why there is such a difference in adoption.

By first analyzing the current strategizing approach and the company's motivations for choosing this approach, a clear idea of what the company considers important was created. After gaining insight into the company's current approach, the company was informed about the A3 approach and what it could mean for them during an intervention. Thereafter, a final interview was held in which factors were identified that influenced private company X motivations in its choice whether to adopt an approach in line with the A3 approach or not.

Furthermore, interviews were held with two educational organizations that have positive experiences with the use of the A3 approach, in which their motivations for choosing for the A3 approach were identified. This could possibly give more insights in the differences or similarities regarding motivations for the adoption of A3 between the public and private domain.

To add a more specific dimension to this research, there will be a focus on the diagnostic control systems lever of control, which is one of the four levers of control that were developed by Simons (1994). This research will also provide a more in-depth view on the use of diagnostic control systems and its influence on the motivations for the possible adoption of the A3 approach.

1.2 Research question

This study aims to answer the following research question:

"What may motivate private company X in its choice to adopt the A3 approach for strategizing?"

The sub questions that should help answering the research questions are as follows:

i) "What motivated the adoption of the A3 approach in educational organizations and what are employees' experiences with the approach?"

ii) "What is the current approach of private company X regarding strategy-making and strategy implementation and what are the success conditions as well as pitfalls for this approach that are identified by the employees of the company?"

iii) "What motivations are suggested by interviewees of private company X to influence the choice of whether to adopt and implement the A3 approach?"

iv) "To what extent does the diagnostic control systems lever of control influence the motives for adopting the A3 approach?

1.3 Academic and practical relevance

The academic relevance of this research is to add value to the current literature about strategy implementation. The answer to the question "what is motivations that influence private company X's choice whether to adopt the A3 approach?" should provide new insights into the company's view on the adoption of strategizing methods, in specific the A3 approach. Adding new literature that describes motivations for choice in strategizing methods can form a basis for potential new research on how these motivations can be influenced by optimizing strategizing practices for example. Additionally, research has been done on the motivations for public organizations that successfully adopted the A3 approach. This should give a clearer view on why the A3 approach has already been widely adopted in the public domain. Since earlier research has indicated that there is no significant difference in employee behavior between employees in the public domain versus employees in the private sector (Baarspul & Wilderom, 2011), this research could further investigate sector differences. By comparing motives of public versus private organization for the adoption of strategizing practices, useful and new insights can be drawn.

The practical relevance of this research is to create an increasing awareness of the potential added value that the A3 approach can provide for private companies. During this research, gaining insight in motivations private company X for their current strategizing approach will create a better understanding of what the company considers important in strategizing. This can be helpful during the intervention to give the company a better idea of how the A3 approach could be of added value for their company. Ideally for the company, these interviews and the intervention can be beneficial if they can be convinced of the effectiveness of the A3 approach. In general, the outcomes of this research can be relevant for any company. Understanding the motivations of other companies on why this approach could be useful or not can help in the assessment of usefulness for their own company.

2. THEORETICAL FRAMEWORK

To guide this study, literature has been studied on the topics of strategy formulation, strategy implementation, open strategizing, the A3 approach to open strategizing, and the levers of control.

2.1 Strategy formulation

Strategy formulation is defined as: dealing with the articulation of a strategy or how the strategy is formed (Köseoglu, M. A., Altin, M., Chan, E., & Aladag, O. F., 2020). It plays an essential role in how organizations identify major problems, find solutions to those problems, and choose strategies as a result (Andersen, 2004; Hopkins and Hopkins, 1997). Acur & Englyst (2006) point the importance of effective strategy formulation as it directs the attention and actions of an organization. For managers that follow a bottom-up approach during the formulation process, strategy formulation has been proven an effective instrument for the coordination of organizational efforts and for the decentralization of the decision-making process (Jarzabkowski and Balogun, 2009). Andersen (2004) and Ramírez and Selsky (2016) point that organizations' strategic plans should be designed to fit the environmental conditions that the organization faces. In existing literature, a wide range of contingencies have been identified that influence the formulation process. Where Tawse et al. (2018) point that more flexible organizations provide a better environment for effective strategy formulation, Davis and Bendickson (2018) found that size influences the effectiveness of strategy formulation, whereas small firms experience more benefits from strategic planning than large firms.

Although there is a lot of literature on strategy formulation, strategies are not always developed by deliberate planning activities (Mintzberg and Waters, 1985). Unexpected events within organizations can cause strategies to deviate from the intended strategy, which can lead to emergent strategies. The concept of emergent strategies resulting from unplanned events created a new field of interest: organizational participation in strategy formulation and implementation processes (Huy, 2011; Rouleau, 2005; Westley, 1990). The increasing inclusion of organizational members in the strategy formulating process is closely related to Mintzberg's (1994) notion that strategy formulation is the responsibility of the whole organization and not only restricted to top management.

2.2 Strategy implementation

Strategy implementation is defined as "activities by managers and employees to turn strategic plans into reality in order to achieve strategic objectives" (Yang et al., 2010). Although strategy formulation plays an essential role in the identification of major problems and finding solution for those problems (Andersen, 2004; Hopkins and Hopkins, 1997), it will not likely bring the intended benefits without successful implementation. Hrebiniak (2006) suggests that for successful implementation, it is key that many individuals in varying levels of an organization are involved, which is something that could be difficult to coordinate. This is supported by a study of Johnson (2004), who reports that 66% of formulated strategies are never implemented. Adding to this, Crittenden and Crittenden (2008) imply that there is a gap between strategy formulation and the realization of performance. The implementation process forms a bridge in this gap, which is why understanding strategy implementation is considered as a key success factor for organizations.

Olson et al., (2005) distinguish two key pillars that should be considered for strategy implementation: organizational structure and organizational behavior. An organizational system should be developed in a way that promotes strategy-enhancing activities. Managers should define the key activities that should lead to the achievement of an organization's strategy. Besides this, the efforts of individuals within the organization should be coordinated well (Olson et al., 2005). Literature about strategy implementation provides multiple factors that enhance effective strategy implementation. O'Reilly et al. (2010) points the importance of consistent leadership effectiveness across hierarchical levels, whereas Atlin et al., (2018) pointed the importance of managers selecting the right methods for performance measurement and evaluation during and after strategy implementation. This is supported by Henri (2006), who suggested that the interactive use of performance management systems is a significant determinant in the translation of strategy into performance.

Furthermore, strategic consensus is seen as one of the most important factors for implementation. Noble (1999) defined strategic consensus as the shared understanding and commitment to a strategy within the organization. Strategic alignment with the environment is seen as an important complementary factor to consensus (Walter et al., 2013).

2.3 Development of strategizing practices

In the 1970's, a management methodology known as Hoshin Kanri evolved. It intended to combine concepts and practices with lean production and total quality management (TQM) to create organization-wide alignment regarding strategic objectives and plans (Nicholas, 2014). In 1992, Kaplan and Norton introduced the balanced scorecard framework, which aims at measuring a firm's performance on multiple perspectives rather than using solely financial measures. It distinguishes the performance of organizations in four areas: customer, financial, growth & learning, and internal business processes (Witcher & Sum Chau, 2007). The balanced scorecard was quickly adopted by its users, and in 1996, Kaplan and Norton extended the theoretical foundation by focusing on the causal linkage between measures, after which the balanced scorecard evolved into a more comprehensive tool for strategic management and implementation to translate strategy into action (Kaplan and Norton, 1996 a&b). Over the years, these practices have gained much popularity, and they emphasized the importance of measuring strategies' effectiveness (Doeleman et al., 2022).

During the 90's, strategizing shifted from a core corporate task to an essential competence of a manager. According to Whittington (1996), strategizing followed a path of planning, and it became a practical task of managers to perform.

In "the adaptive turn", proposed by Weiser et al. (2020), the focus of research on strategy implementation is shifted to analyzing how strategies are continuously absorbed in the implementation process. The research proposes that strategies could also be developed bottom-up, rather than only top-down, by involving a broad range of stakeholders.

2.4 Open strategizing

A more recent trend that is witnessed since the last decade is the increasing adoption of "open strategizing". Open strategy is defined as "a dynamic bundle of practices that affords internal and external actors' greater strategic transparency and/or inclusion" (Hautz *et al.*, 2017). A constant increase in the dynamics of business environments require businesses to be more flexible when it comes to strategy. Studies have shown that an open strategy approach can facilitate the required flexibility (Jarzabkowski, 2004; Andersen et al., 2019).

Open strategizing practices distinguish from more traditional strategy practices by placing its emphasis on transparency and participation. Key part of open strategy is the inclusion of all members of an organization for strategic issues where both internal and external stakeholders are involved (Whittington et al., 2011). Besides transparency, participation and inclusion are two key pillars for open strategizing. Over time, IT enablement became another important component of open strategizing. The use of information technology supports the facilitation of the above-mentioned pillars of open strategy (transparency, participation, and inclusion). Tavakoli et al. (2015), introduced IT enablement to distinguish open strategizing from other management approaches, since it enables (instant) connections to a much broader group of stakeholders. The involvement of a broad range of organizational members facilitates shared understanding and stronger commitment, which could lead to effective strategy implementation (Hutter et al., 2017). According to Weiser et al. (2020), and Jarzabkowski et al., (2019), open strategies require constant "strategizing", which implies that all relevant stakeholders should constantly act in line with the organization's strategic objectives.

The wide range of theory on open strategizing can be translated into three concrete examples open strategizing practices. First, Adobor (2020) and Paroutis et al. (2015) emphasize the creation of a one-page visual strategy map, which is co-created with both managers and representatives of other important stakeholders. Such clear one-paper visual strategy maps should facilitate transparency and credibility of the strategizing process (Gegenhuber and Dobusch, 2017). Besides this, the broader involvement of employees in strategizing processes could lead to higher commitment levels (Birkinshaw, 2017). Secondly, according to Simons (1995), frequent management dialogues are determinant for strategy development and implementation. During those dialogues, which should be done on a weekly or monthly basis, goals and performance over the last period should be monitored and discussed. It is important that the points of discussion during those dialogues are initiated bottom-up. The third concrete open strategizing practice is the use of an online overview of the progress on strategic goals. If these digital data visualizations are easily accessible, visually attractive, and in line with the one-paper strategy map, strategy implementation will be stimulated (Bateman et al., 2016; Morton et al. 2019, 2020). Important to notice is that these open strategizing practices combined, have a synergetic effect on each other, which could ultimately lead to effective strategy implementation (Anthony and Govindarajan, 2003).

2.5 The A3 approach to strategizing

Built on the core principles of open strategizing is the relatively new A3 approach to open strategizing, developed by Dr. H. Doeleman. The goal of this approach is to achieve successful implementation of annual plans, and more effective formulation of annual plans by reducing the paperwork and increasing the control of management (Doeleman & Diepenmaat, 2014). The A3 approach makes use of the EFQM excellence model, which enables organizations to determine their position in the quality process. The basic EFQM model is built on nine criteria: five 'enablers', which show what an organization really does, and four 'results', which show what the organization achieves (Gómez Gómes et al., 2011). For the A3 approach, the EFQM model is integrated in the one-page visual annual plan. Recently (EFQM, 2020), the nine criteria became suggested criteria, organizations are asked to argue and define their own criteria.

The A3 approach distinguishes itself from other approaches by integrating key concepts of management & control and leadership into three key pillars: the A3 annual plan, the A3 progress dialogue and the A3 digital tool: A3 online. These three pillars are built on the three open strategizing practices that were elaborated in the previous section. On an A3 sized page, organizations formulate their mission, vision, and success factors that determine the organization's direction. Organizations should capture what they want to achieve and how they want to do this by linking this to enabler areas and result areas. First, organizations should set the direction, after which desired results are defined. Finally, actions should be formulated that help in the achievement of the intended plans. The use of different colors in the A3 plan emphasizes the relations between stakeholders, targets, and actions (A3 Company, 2020).

As Henri (2006) supposes, the interactive use of performance management systems is determining in the translation of strategy into performance. The use of the A3 digital tool, which is highly modifiable and interactive should therefore address to a better translation of strategy into performance.

Another key factor for successful implementation is the involvement of many individuals from varying levels organization (Hrebiniak, 2006). Participation is also a critical part of the A3 approach since the co-creation of plans by employees from various layers creates a sense of togetherness.

2.6 Strategy and levers of control

In 1994, Robert Simons introduced the four levers of control. In his book, "the levers of control, how managers use innovative control systems to drive strategic renewal", he provides a new and comprehensive theory for controlling business strategy. Simons defined tensions between experimentation and efficiency, empowerment and accountability, freedom and constraint, and top down-direct and bottom-up creativity. To create a balance between these tensions, Simons developed four levers of control: belief systems, boundary systems, diagnostic control systems, and interactive control systems. Belief systems are used to inspire and direct the search for new opportunities, whereas boundary systems act as limiters on opportunity-seeking behavior. Diagnostic control systems are used to motivate, monitor and reward the achievement of specific goals. Interactive systems should stimulate learning opportunities throughout the organization, and it should lead to the emergence of new ideas and strategies. Altogether, these levers should provide the right balance for effective strategy implementation (Simons, 1995).

Since research addresses the importance of selecting of the right performance measurement and evaluation systems for effective strategy implementation (Atlin et al., 2018), diagnostic controls can be considered an important factor in realizing effective open strategies. Henri (2006) supposes that the use of interactive performance management systems determines the translation of strategy into performance. Diagnostic control systems are crucial to manage performance, since they are used to motivate, monitor, and reward the achievement of specific goals.

3. METHODOLOGY

3.1 Research design

This is an explorative case study in which research is done within private company X. The study is a longitudinal action study that consists of three measurement points. At T0, an interview will be held in which employees of private company X are questioned about motivations, pros, and cons of their current strategizing approach. Following up, an intervention (T1) takes place with the same individuals representing the company, in which they are introduced to the A3 approach and what it could mean for them. During this intervention, both verbal and non-verbal reactions are monitored to analyze the impact of the intervention. Finally, a last interview round was held, in which the motivations to choose or not to choose for the adoption of the A3 approach are analyzed (T2). Besides the case study at private company X, multiple interviews are held with members of educational organizations that aim at identifying the reasons that led to the adoption of A3 within their organizations. The results of these interviews could be compared to the case study at private company X, to see whether there are possible similarities or differences in motivations for adopting the A3 approach.

3.2 Research methods

3.2.1 Interviews

The explorative case study will be conducted with the use of individual interviews at private company X. The interviews were held individually, with multiple members of the organization. Important is that the same representatives were interviewed before and after the intervention to be able to best measure the impact of the intervention on the thoughts of the interviewees. All interviews were conducted in Dutch, since this was easier for respondents, which enhances the quality of the answers. However, since this research is written in English, all interview quotes and interview questions are translated into English.

Besides this, two indicative interviews were held with representatives of educational organizations X and Y. These interviews were conducted individually.

3.2.2 Interview analysis

The interviews will be analyzed using the Gioia method for qualitative data analysis. This method is used for coding qualitative data into a structured image and meaning of the results in three steps (Gioia et al., 2012). First order concepts will be retrieved from the interviews, that will then be grouped and translated into second order themes. The second order teams are also grouped and translated into final aggregate dimensions. These aggregate dimensions will be key motivations for private company X for the possible adoption of the A3 approach.

Besides using the Gioia method for qualitative analysis, the results from the interviews are also presented a table which can be found in the appendix. This table is used to group and connect quotes from the interviews to recurring concepts. This way, a clearer overview of the effects of the longitudinal action study is created.

The interviews with educational organizations X and Y were not analyzed using the Gioia method, since two interviews provided insufficient data to perform a thorough analysis. The key findings are presented in the results section, supported by quotes from the interviews.

4. RESULTS

In this section, all data that was gathered in the interviews is presented. All interviews were recorded and transcribed to make sure that conclusions could be drawn as accurately as possible. The results part is divided in multiple sections. The first subquestion focused on the motivations for adopting the A3 approach of organizations in the public domain.

The second and third question aim to identify motives of private company X for both their current strategizing methods as for motives for the possible adoption of the A3 approach. During the explorative case study at private company X, interviews were conducted at two different points in time (T0, T2), with an intervention in between (T1). The relevant observed reactions of the intervention can be found in the table in appendix 9.5.All interviews were conducted with multiple employees of private

company X, apart from each other. Important to note is that the interviewees at point T0 are the same interviewees as at point T2. In section 4.2, the key findings of the first interview round are presented, which regard the private company X's current approach to annual plans. In section 4.3, the results of the second interview round are presented, which show the indicated motivations by representatives for adopting the A3 approach. The results of both interviews have been analyzed using the Gioia method. Combining the motivations and experiences of their current approach with the indicated motivations for the adoption of the A3 approach led to three aggregate dimensions that identify the key motivations for adopting the A3 approach. The Gioia table can be found in appendix 9.6.

The fourth question aims to identify whether the presence of diagnostic control systems has any influence on motivations to adopt the A3 approach. In the interviews with both public and private organizations, specific questions regarding the use of diagnostics control systems were asked. These answers should provide insights in the influence of this lever of control on the motivations for adopting the A3 approach.

4.1 Results from educational organizations X and Y.

The results described in this section relate to the following subquestion: "What are the reasons that led to the adoption of the A3 approach in educational organizations X and Y, and what are their experiences with the approach?"

The complete set of interview questions can be found in appendix 9.1 (interview questions public domain).

In total, two employees from two different educational organizations were interviewed. In both cases, the interviewees have/had an important role in the adoption and further use of the A3 approach. Organization X is an organization for higher education, that is currently working hard on implementing the A3 approach, and that tries to find the best fit for the A3 approach within the organization. The representative of organization X is an experienced user of the A3 approach who has a background in consultancy. At the time of the interview, the representative was doing research on why the A3 approach is not fully implemented yet and how this can be improved.

Organization Y is an overarching organization that runs multiple high schools. The organization is currently working on a new direction, and the A3 approach should guide them in this process. The representative of organization Y is a board communications advisor, who is responsible for communicating the direction throughout the entire organization, and thus also to guide the organization in the adoption of the A3 approach.

4.1.1 Motivations for the adoption of A3

Organization X identified increasing participation of employees throughout the entire organization as most important motivation for the adoption of A3. Besides higher participation, the representative of organization X mentioned that he expects A3 to make the organization more dynamic through more dynamic monitoring and thus have an improved ability to react upon changes and to estimate the impact of their actions.

"The direct motivation for the use of A3 was to create more involvement of all employees. Besides this, changes in the environment require our organization to become more dynamic and flexible to be able to estimate the impact of our actions."

Organization Y pointed that A3 provides them the grip they need. Within educational organizations, attention and focus are often fading away quickly and decision-making is very slow, indicates representative X.

"The organization felt that A3 could provide the grip and focus by snapping up strategic plans/goals in smaller and clearer pieces that are then connected to each other".

4.1.2 Pros of the A3 approach

Organization X sees the A3 online annual plan as the biggest "benefit" of the A3 approach. Since they have adopted the A3 approach (a process that is still in progress), it is evident that the A3 annual plan created a clearer and more integrated view on their annual plans. The conversation cycle has not been adopted enough yet to draw any conclusions on the added value of those conversations within organization X. However, the representative indicates that he is aware of the potential added value of a more frequent conversation cycle based on past experiences with the A3 approach. The representative of organization X showed great enthusiasm about the digital tool based on what he has seen so far.

"At this moment, the A3 annual plan provides most added value. It is being used to create a clearer and more integrated view on the annual plan. Besides this, it becomes a lot easier to connect goals to results and critical success factors, so this leads to an improved overall understanding of the annual plan."

As for organization Y, higher participation levels and more proactive conversations about the annual plans were witnessed after the adoption of the A3 approach. Conversations about critical success factors and organization-wide strategies with many participants increased the awareness of strategic planning. And if plans are being made with more awareness and better discussions on what should happen, this leads to improved quality of those plans.

"What we currently witness is that the weekly conversations regarding our strategic plan are significantly more pro-active. The discussions that rise during those meetings force everyone to think more critically, which enhances the quality of the plans."

4.1.3 Cons of the A3 approach

Since organization X still finds itself in an evaluation phase in which they aim to find the best way of using the A3 approach, the representative declared that he could not name any cons yet. Although the pros were clear from the beginning, it might take a bit longer to discover what could be improved.

Organization Y, however, experiences some limitations in the digital tool to make some connections between critical success factors and those tasks that should address to those factors. As the representative of organization Y pointed out:

"It would be nice be able to add some small tweaks in the online digital tool that create a bit more overview. We chose for the A3 approach since it would provide a better overview, but now that we are expanding our plans and add new aspects, the overview declines a bit. It now gets hard sometimes to see the real connections within the annual plan. Long story short: tools that give us the possibility to create a bit more structure would be nice".

4.1.4 Other key findings

Representative X of organization X emphasized that the successful implementation of the A3 approach will cost time and habituation. As an experienced user and implementer of the A3 approach, his general experience is that it likely takes a few years before every member is familiar with the approach. To ensure the

effective implementation and use of the A3 approach, it is important to involve all important stakeholders in the process of strategy formulation.

"Make sure that all relevant stakeholders are optimally involved in the process of strategy formulation. Also, it is important to keep those people active in the improvement and innovation process. This will contribute to the learning capabilities of the organization."

4.2 Results from private company X's first interview round

The results described in this section relate to the following research question: "What is the current approach of private company X regarding strategy-making and strategy implementation and what are the success conditions as well as pitfalls for this approach that are identified by the company?".

The complete set of interview questions can be found in appendix 9.2 (interview questions private company X T0). In addition, a table can be found in appendix 9.5, in which all important quotes from the interview were sorted and connected to recurring concepts. This table contains quotes of both interview rounds, and it allows for better presentation of the longitudinal effect of this study.

Private company X is a chemical company that is specified in the development of catalysts. The Dutch plant is part of a concern with more than 6,000 employees worldwide. In this research, the focus will solely be on the Dutch plant, which provides work for about 450 employees. Since they are part of a corporate structure, they are not fully independent in the formulation of their strategy. However, after a first meeting, it was clear that they were independent enough to select their own methods for strategy formulation, implementation, and annual planning.

In total, three employees were interviewed over all three points in time. However, in the first interview round, there were more interviewees that provided useful insights on their current strategizing methods but who did not have time to be interviewed in the second and/or third round. Their answers will be used to create a better idea on their current way of working, but those answered will not be used for the afterwards comparison at T2.

The representatives of the organization were all persons that are directly involved in the process of strategy formulation, implementation and annual planning.

4.2.1 What is the current approach to strategymaking and strategy implementation of private company X?

Currently private company X works with annual plans that are formulated in an Excel sheet. However, between different departments, there is some slight difference in systems that are being used. Some departments require more alignment with corporate operations, whereas other departments operate more independently. This results in the use of different strategy-related systems (monitoring, personal goals etc.).

For this research, the focus is kept on the general, company-wide annual plans that are formulated in Excel. The document that is being used at the time of the interview, is a derivative of an A3 annual plan. Representative X of private company X stated that the company attempted to use the A3 annual plan a couple of years ago. However, this was only based on a limited example and the implementation at the time was not assisted by an experienced A3 user. First, the mission, vision, and critical success factors are formulated. Below this, goals are formulated. All goals are clearly described by the following labels: critical success area, category, objective, action, priority, required results, plan type (site/department), department, responsible person, accountable person, start, finish, and KPI. This should lead the organization to the formulation of clear, SMART goals. However, multiple representatives have indicated that in practice, this plan is not being used very actively. Although goals seem to be formulated clearly, the overall feeling is that the annual plans are rather being used from compliance perspective than for active strategizing purposes. Representative Y indicates that it feels more like something they formulate every year, and only shortly discuss at quarterly reviews. Before those quarterly meetings, everyone quickly updates their progress and after those meetings the document is barely used until the next quarterly meeting.

The plan is being formulated on an annual basis, with only the presence of the site's management team (managing director + department managers).

"The annual plan that is currently being used via Excel is in fact a derivative of the A3 plan. A few years ago, I saw an example of the A3 annual plan, and it appealed to me. We started to create our own version in the Excel sheet. However, over the years, the process became highly standardized, and it is not something that we are working with very actively. Only when we have quarterly meetings in which results are discussed, the Excel sheet is updated, and it is adjusted only where necessary. My personal experience is that after those meetings, the document is not really used until the next meeting."

Representatives indicated that the formulation of those plans is mostly done by looking at last year's plan and decide where adjustments are required. Besides this, the formulation process is seen as very top-to-bottom. Employees on the bottom of the organization are barely involved in the formulation of plans. Once the annual plan is formulated, it is not communicated throughout the organization on an active basis. Representatives indicated that in so-called "townhall-meetings", only a limited number of employees is informed about the annual plan.

"In fact, we just look at last year's plans, see if there are new requirements from our corporate team, see if there are new safety regulations or existing safety regulations that require more attention, and we update the plan. This is highly restricted to our site management team."

4.2.2 What are the success conditions for this approach?

Representatives X, Y and Z indicates that the current system provides some degree of clarity. Although it is not a dynamic and interactive way of working, people generally know what the most important goals are and what these goals contribute to. Representative X added to this that the organization has to deal with a lot of safety restrictions and regulations. Therefore, it is nice that the current Excel file provides an overview of these regulations, and it indicates if the company manages to stick to those regulations. Representative X also points that it is very important that KPI's can be measured and presented clearly in the annual plan. Something which is possible in the current Excel annual plan. Furthermore, representatives did not identify specific aspects of the current approach that make it very successful, since it is not used very actively.

4.2.3 What are the pitfalls for this approach?

During the interview, there was a lot of consensuses about the pitfalls or drawbacks of the current approach. All representatives indicated that that there is a lack of coordination between departments in the formulation and realization of plans. This is partly caused by unplanned events that occur in different departments, which sometimes force to deviate from the intended strategy. However, it was unanimously stated that the current approach itself is not ideal for creating a well aligned annual plan. The current method is being identified as rather passive and reactive, and there is a lack of attention to stick to the plan. Besides the lack of coordination and attention, representatives also identify the current approach as not transparent, since the information is only available to the top layer of the organization, and employees are not informed frequently. Lastly, a comment that was made repeatedly is that there is low participation in the formulation of the plans. Obviously, some topics can only be discussed and decided by management teams, but representatives agreed that there could be more participation in the formulation of plans from bottom layers of the organization.

4.3 Results from private company X's second interview round

The results described in this section relate to the following research question: "What motivations are suggested by interviewees of private company X to influence the choice of whether to adopt and implement the A3 approach?".

The complete set of interview questions can be found in appendix 9.3 (interview questions private company X T2). In addition, a table can be found in appendix 9.5, in which all important quotes from the interview were sorted and connected to recurring concepts. This table contains quotes of both interview rounds, and it allows for better comparison before and after the intervention. During the last round of interviews, three employees were interviewed who were part of this study at all three measurement points. The questions that were asked in the last interview round relate to the possible adoption of the A3 approach.

4.3.1 Effective use of annual plans

An important motivation for the adoption the A3 approach that was indicated by the representatives is the higher efficiency and effectivity in the realization of the plans. Currently, plans are mostly created from a compliance view, and it is often more seen as an obligation than as a resource for strategic performance. All representatives indicate that by working on annual plans on a more frequent basis, with more employees involved, the plans will likely be taken more seriously. Representative X also expressly mentions that he expects that the A3 annual plan will provide more detailed agreements on what should be done and when, and that this improves the effectiveness of the plans. Representative Y also expresses that he expects a more consistent use of the plans, which will result in more effective plans.

"The methodology, if applied better than our current approach, can provide us more grip and it enables us to use the annual plan more actively rather than looking at it four times a year."

"I expect that the implementation of A3 will generate more detailed agreements and it will be clearer what should be done under what circumstances. This will contribute to more decisive and effective annual plans."

4.3.2 Transparency

One of the biggest drawbacks of the current approach within private company X was the lack of transparency in the formulation and use of annual plans. All representatives indicated that the adoption of the A3 approach could improve the transparency. By formulating clearer plans, with more and clearer connections between departments, the annual plan will be easier to understand for people from various departments. Besides this, it is expected that better communication regarding updates and changes on the plan will also increase understanding of what is currently going on.

"If we manage to formulate clearer plans and put more effort to generate company-wide awareness of those plans, it will generate broader understanding of what we want and how we want to achieve it throughout the company. This is something on which we are currently lacking. People are mainly aware of their own tasks, so I believe that higher transparency can help us realize our goals better and more efficiently."

4.3.3 Participation and coordination

Two other motivations for adopting the A3 approach are increased participation and coordination. Whereas the current approach became a highly standardized process, with few incentives to critically assess and discuss the annual plan, all representatives indicate that the A3 approach has the potential to increase participation and coordination. Involving a higher number of employees in formulating and evaluating the annual plan will likely create a greater sense of contribution.

"By having meetings on a more frequent basis in which we discuss the progress on the plans and assess what adjustments should be made, with more attendants, the annual plan is used pro-active and leading instead of passive and reactive."

The inclusion of a higher number of employees in the formulation of those plans, is also expected to increase the level of coordination between various departments, indicates Representative Y. The co-creation of plans with more employees and on a higher frequency will create better alignment of the strategic plans of different departments.

"Currently, we experience that the alignment of strategic plans between various departments is difficult. As mentioned in the first interview, each department has its own goals and departments are often working past each other. Although it is simply impossible to realize full alignment between all departments, I believe that successful adoption of the A3 approach could result in better alignment between apartments through more participation, coordination and transparency. Hopefully this will make it easier for us to stick to- and realize our intended plan."

4.3.4 Digital A3 tool

Finally, all representatives unanimously agreed on the added value of the Digital A3 tool. Representative Z indicates that the digital A3 tool provides much a better overview and higher flexibility than the Excel sheet that is currently in use. However, it is important to notice that the representatives mentioned that it is crucial to first have a solid understanding of what the tool is capable of. Representative X points that it should be avoided to copy-paste their current plan in the digital A3 tool. To reach full potential, meetings should be held in which the digital A3 annual plan is co-created. Once the plan is formulated and translated into the digital tool, the tool will enhance to all points named above. Transparency is increased since all information is made available in one digital tool, which could be easily adjusted. Besides this, it provides a better view of the connections between goals and

plans of various departments, which improves the coordination between departments.

"During the intervention, it was especially nice to see how the digital tool could be used. The interconnectivity of the tool makes it easier to see what impact certain actions have on particular goals. The ability to link goals easily to our critical success factors, the annual plan becomes a more integrated and interconnected plan."

4.4 Influence of the diagnostic control systems lever of control on the motivations for adopting the A3 approach.

The results described in this section refer to the following research question: *"To what extent does the diagnostic control systems lever of control influence the motives for adopting the A3 approach?*

To add a more specific dimension to this research, all organizations that participated were faced with four questions regarding the use of diagnostic control systems in their organization, and the importance of diagnostic control systems in their strategizing processes. The goal was to identify if these systems have influence on the motivations for adopting the A3 approach. The specific questions regarding the lever of control can be found in appendix 9.4.

4.4.1 The use of diagnostic control systems of educational organizations X and Y

Both organizations X and Y indicate that the use of KPI's is hard in educational organizations. In education, it is not always about hard numbers. There are many cases in which feelings, circumstances, and context are more important than measuring KPI's. It could be nice to measure some goals more precisely, but it is very hard to assign a KPI to such complex issues.

Both representatives of organization X and Y mention that KPI's are far from leading in the formulation of strategies. There is more emphasis on critical success factors. These success factors are moreover monitored by discussing what is happening, rather than looking at hard numbers. Representative X of Organization Y points that they do see the added value of using KPI's, since it could provide more grip in certain situations.

Although KPI's are not leading for both organizations, Organization Y does make use of KPI's. These KPI's are mainly based on satisfaction surveys among employees, teachers, students, and parents. The goal of these KPI's is primarily to indicate the general position of the organization. There are no direct actions linked to the KPI's. Lagging behind on a certain KPI would simply be a trigger to discuss what possible solutions could be.

Despite the fact that KPI's are useful in some cases for both organizations, the use of KPI's does not have great influence on the motivations for adopting the A3 approach. Educational organizations X and Y's motivations are mainly influenced by the increased grip and higher participation that the A3 approach provides.

4.4.2 The use of diagnostic control systems in the

current strategizing approach of private company X Other than for educational organizations, all representatives of private company X point that KPI's are very leading in their annual plans. The representatives indicate that in business, goals are more concrete, and this requires specific outputs. To measure if required outputs are realized, KPI's are essential. This is also seen in the Excel sheet for annual plans that is currently being used. All goals are linked to specific KPI's, which are also the indicators for adjustments.

Representative Y indicated that the extent to which adjustments are made based on KPI's differs per department and per KPI. As mentioned earlier, private company has to deal with a lot of safety regulations. It is crucial that the KPI's that monitor the safety levels are constantly updated and adjusted if necessary. However, there are also many KPI's that are only adjusted quarterly.

It is evident that currently, KPI's are a crucial factor in the formulation and use of the annual plan. Depending on the importance of the KPI, it is decided how often it needs to be adjusted. The KPI's provide a clear view on the status of goals, and they are crucial to keep track of safety levels.

4.4.3 The expected impact of the A3 approach on the use of diagnostic control systems at private company X

In the first interviews, it became clear that the use of diagnostic control systems was a crucial and leading factor in the use of annual plans. The A3 digital annual provides a lot of tools to display KPI's and the historical progress on KPI's. It is easy to link KPI's to goals and the tool enables the organization to choose whether to steer or monitor on KPI's. This makes it even easier for private company X to decide what to focus on.

During the intervention, most questions were asked about the possibility to translate KPI's into the digital tool and the ability to link KPI's to specific goals or people. This once more emphasizes the importance of diagnostic control systems at private company X.

In the second interview round, the same questions were asked about the use of KPI's, but then the use of KPI's while using the A3 approach. All representatives mentioned that the importance of diagnostic control systems will not be impacted by the possible implementation of the A3 approach, since the KPI's are already leading in the current approach. However, representatives have indicated that the A3 approach could improve the usefulness of KPI's. By creating better visualizations of progress on KPI's, and the ability to define whether you are steering or monitoring on a certain KPI makes it even easier to create the right focus.

5. DISCUSSION

The execution of this qualitative research can be considered successful. All interviews in the public and private domain led to useful new insights on the motivations for adopting the A3 approach, and all sub-questions that guided the answer on the research question could be answered. Literature does not provide specific motivations for the adoption of the A3 approach, and a difference in adoption between the public and private domain is witnessed. In this section, specific motivations for the adoption of the A3 approach are discussed, and the influence of diagnostic control systems on the motivations for adopting the A3 approach is discussed.

5.1 Research at educational organizations X and Y

In the first part of this thesis, interviews were conducted at two educational organizations that adopted the A3 approach. The

goal of these interviews was to identify the most important reasons that led to the adoption of the A3 approach within both organizations, and to gain improved insight into the use of the approach by evaluating experiences of both organizations. The main reasons for the adoption of the A3 approach in educational organizations X and Y were higher participation, increasing dynamic ability of the organization, and increased grip on strategic plans. These initial motivations to choose for the adoption of the A3 approach are in line with the experienced benefits of the approach. From the moment A3 was implemented, higher levels of participation were experienced and conversations around annual plans became much more proactive. This led to improved progress dialogues and evaluations about strategy and annual plans, and ultimately to improved quality and implementation of the annual plans. Representative X emphasized that the successful implementation of the A3 approach takes time, and it is crucial that all relevant stakeholders are optimally involved in the formulation process to make it successful. This is in line with findings of Hrebiniak (2006), who suggests that the involvement of many individuals from varying levels of an organization is key for successful implementation. Besides this, it was emphasized by representative X that the A3 approach works optimal if there is a great sense of strategic consensus, and that strategic plans should be the central thread for all actions that are being done by actors within the organization. This fits to literature from Weiser et al. (2020) & Jarzabkowski et al. (2019), who found that open strategies require constant strategizing.

The A3 digital tool is seen as an overarching factor that ensures better strategy execution in multiple areas. Greater transparency, clearer and easy to understand plans, and better engagement are the main perceived benefits of using the digital tool. Besides this, it was indicated that the digital tool improved the performance management, which increased the grip on strategic plans compared to the previous approach of the organization. This is supported by theory of Henri (2006), who stated that performance management systems are crucial factors in the translation of strategy into performance. The experienced benefits again align with the main motivations for choosing the A3 approach. Thus, it can be stated that for both educational institutions, the positive experiences after the application align with the main motivations for choosing it in the first place.

It can be concluded that overall, higher participation levels, and increased grip on the annual plan can be seen as the key motivations for the adoption of the A3 approach in educational organizations X and Y. The A3 digital tool acts as an important strengthening factor which facilitates higher transparency, better visualization, increased strategic consensus, and more participation. The experienced benefits of the online A3 tool are supported by Tavakoli et al. (2015), who introduced IT enablement to open strategizing practices to enable instant connections between a broader group of stakeholders. The reach to a broader group of stakeholders increases transparency and participation, which ultimately results in a more dynamic and flexible organization with an improved ability to react upon changes in the environment it operates in, something which was pointed by representative X as an expected outcome of the adoption of the A3 approach. According to Tawse et al. (2018), more flexible organizations tend to provide a better environment for effective strategy formulation, so it could be concluded that the increased flexibility of organization X after the adoption of the A3 approach also facilitated an improved environment for more effective strategy formulation.

5.2 Research at private company X

The second part of this study consisted of an explorative case study at private company X. In total, two interviews were held with an intervention in between those interviews. The goal was to first gain insight in the current approach for strategizing and its success conditions as well as pitfalls. Hereafter, the company was introduced to the A3 approach during an intervention with Dr. H. Doeleman. Ultimately, interviews were conducted after the intervention to identify possible motivations that influence company X in its choice whether to adopt the A3 approach. All three phases of this explorative case study provided useful insights, and after analyzing the outcomes, a clear link between the pitfalls of the current approach and the possible solutions of the A3 approach could be made.

In the first interview round, it became clear that the current method for annual plans met the company's requirements to a certain extent. The current plans are clear in a certain degree, and they offer enough possibilities to monitor progress on certain goals. In addition, they give a clear indication of whether safety regulations are being achieved or whether work still needs to be done on them. This is a crucial aspect for the company, as they work with many hazardous substances, and thus have to deal with many and strict safety and environmental regulations. However, according to representatives, the current approach with annual plans falls short on several points. For example, all representatives indicated that there is little transparency, little participation, poor coordination between departments, and little consistency in the use of annual plans. The formulation and informing of annual plans are very limited to only the top layer of the company, so there is no broad involvement in the formulation and use of the current annual plans. Also, a sluggish flow of information, partly caused by the use of different information systems within different departments, means that departments often work past each other and are therefore unaware of what is happening within other departments. In addition, representatives indicated that the plan is not used very actively, and that it is more like something that is updated at each quarterly review, after which it is barely used again until the next quarterly review. The results from the first interview round imply that there is currently little strategic conscious within the company. There are no real motivations for the current method, it only provides the organization with sufficient options to measure important progress on plans or regulations. This led to a passive and reactive use of annual plans, rather than using it as a resource for strategic performance.

Soon after the intervention and during the second round of interviews, it became clear that the A3 approach could help the company improve on all of the above points of criticism of their current approach. The combination of a more frequent conversation cycle, with participation of multiple individuals from multiple layers of the company, and a better representation of information through the use of the A3 digital tool could lead to greater transparency, increased participation, better alignment, and more consistency.

After elaborating the interviews, a Gioia analysis was performed. Hereby, the results of both the first- and second-round interviews were taken and translated into three aggregate dimensions: increasing transparency, increasing participation, and increasing consistency. These three dimensions count as the most important motivations for the company to use the A3 approach. These motivations are supported by existing literature. Increasing participation and thus the involvement of many individuals from varying levels of the company is seen as a crucial factor for successful strategy implementation (Hrebiniak, 2006). The use of IT-enabled, easily accessible, visualizations of the co-created one-page annual plan should facilitate this expected increase in participation and transparency (Gegenhuber and Dobusch, 2017; Tavakoli et al., 2015). Besides this, the visually attractive onepage annual plan should lead to more consensus about strategic plans throughout the organization. By making the organization's goals clear to all stakeholders, transparency increases. This is supported by Hautz et al. (2017), who suggests that open strategizing approaches, like the A3 approach, provide strategic transparency for all stakeholders. The involvement of a broader range of employees in the strategizing process, expectedly resulting in increased commitment and higher participation levels is also supported by theory. Birkinshaw (2017) found that the involvement of employees in the strategizing process could increase their commitment. Whittington (2011) also supports the idea that "open strategizing" increases the engagement of all stakeholders within an organization. Therefore, it can be concluded that the A3 approach provides company X with the desired increase in participation.

Another important pillar of the A3 approach that should address to increasing consistency are more frequent management dialogues. Since representatives indicated that the annual plan is now only discussed rather passively and reactive on a quarterly basis, more frequent management dialogues in which goals and performance are monitored and discussed could improve the process of strategy development and implementation, something which is supported by Simons (1995).

Thus, the expected benefits of applying the A3 approach seem to fit particularly well with the deficiencies of the current approach to annual plans in private company X. These motivations are also consistent with the existing literature on the advantages of open strategizing practices. In the interviews, all four pillars of open strategizing (transparency, inclusion, participation, and IT-enabled), have been mentioned as specific strengths of the A3 approach compared to the current approach. The combination of the four main pillars of open strategizing, also seems to facilitate strategic flexibility in this case, something that is consistent with the findings of Jarzabkowski (2004) & Andersen et al. (2019).

If we compare the motivations for adopting the A3 approach of private company X with those of the educational organizations, overlap can be seen. In both cases, increasing participation is an important motivation for choosing the A3 approach. In addition, in both cases the online A3 tool forms an overarching factor, leading to increased transparency, increased participation, and increased strategic awareness. This suggests that the online A3 tool has at least the same effect within both organizations. However, the limited scale of the study makes it impossible to draw clear conclusions about the similarities and differences in motivations for applying the A3 approach between public and private organizations. It is difficult to determine whether the mentioned motivations exist in general or whether they arise purely from the needs of the organizations studied.

5.3 Diagnostic control systems

Furthermore, a specific dimension that was researched in this thesis is the influence of presence of the diagnostic control systems lever of control on the motivations for the adoption of the A3 approach. The effect of the presence of this lever of control on the motivations for choosing the A3 approach was investigated in both educational institutions and private company X. There were clear differences between the importance of diagnostic control systems in educational institutions versus private company X.

Representatives of both educational institutions indicated that the use of KPI's within education is much more difficult than for companies. Education is not always about hard, measurable results. Context and feelings are often more important here and this is difficult to translate into KPI's. When it comes to the use of A3 annual plans, the educational organizations look more at the critical success factors, discusses them, and adjusts them where necessary. Thus, within the studied educational organizations, the use of diagnostic control systems is not of great influence on the motivations for using the A3 approach.

At private company X, very different results emerged. All representatives indicated that KPI's are already leading in the current use of annual plans. It was mentioned that for their business, goals are more concrete, and those goals require more specific outputs. For the company, KPI's are crucial to measure progress on goals and also on safety levels. It can be concluded that for private company X, KPI's are thus a crucial factor in the formulation and use of annual plans. However, this does not give any indication on the influence of diagnostic control systems on the motivations for adopting the A3 approach yet.

In the second interview round at private company X, it became clear that although the A3 approach provides a strong diagnostic control system, it is not something that influences the company in the choice whether to adapt the A3 approach. In any case, the use of KPIs is crucial for the company. They consider it more as a basic requirement for any method for annual planning. The fact that the A3 approach offers good and even better possibilities for monitoring and steering KPIs does not mean that this is the main motivation for them. The added value of the A3 approach for us lies more in the points that came up during the interviews: increased transparency, increased participation, and more consistency in the use of annual plans.

Translating this into more general context, it is difficult to say what the exact influence of diagnostic control systems is on the motivations for applying the A3 approach. Within the educational organizations it became clear that the use of diagnostic control systems is more difficult because hard numbers and results are usually not the most important thing in those organizations. Within the educational sector the needs are different from those in the business world, and this could be a possible explanation for the fact that diagnostic control systems have little influence on the motivations for applying the A3 approach within the researched educational organizations. Also, the results within private company X do not provide an unequivocal answer to the question of the influence of diagnostic control systems on the motivations for applying the A3 approach. Despite the fact that KPIs are leading in the company's annual plans, it was indicated that the presence of diagnostic control systems in the A3 approach has little influence on the motivations for applying the A3 approach. As previously indicated, increasing transparency, increasing participation, and increasing consistency in the use of annual plans are considered the most important motivations for choosing the A3 approach. Diagnostic control systems are seen more as a basic requirement than as a unique added value.

6. CONCLUSION, LIMITATIONS, AND RECOMMENDATIONS

6.1 Conclusion

In this study, the focus was on identifying private company X's key motivations for applying the A3 approach. By conducting two rounds of interviews within private company X, with an intervention in between, useful and new insights emerged about the motivations for applying the A3 approach. The results show

that increasing transparency, increasing participation, and increasing consistency in the use of annual plans are considered the most important motivations of company X for applying the A3 approach. These motivations are largely consistent with the collected literature on strategy formulation, strategy implementation, and open strategizing.

In addition to the research within private company X, the interviews at educational organizations X and Y also led to useful insights about the most important motivations and the perceived added value of the A3 approach. Increased participation, more flexibility, and more grip on the annual plans emerged as the most important motivations for applying the A3 approach.

After this study, little can be said about the influence of diagnostic control systems on the motivations for applying the A3 approach. At the moment, it seems that the needs of organizations are so different that the presence of diagnostic control systems does not have an unequivocal influence on the motivations for applying the A3 approach.

All in all, the results of this research offer new, concrete insights into possible motivations for applying the A3 approach within a private company. Since there is still a large difference in the adoption of the A3 approach between the public and private sector, the results of this research could ensure that in the future an increasing number of private companies will recognize the added value of the A3 approach, which could ultimately result in an increased adoption of the A3 approach in the private sector. However, it is important to mention that the results of this research are specific results of a case study within private company X. Therefore, there is no guarantee that these outcomes will be the same in other companies.

6.2 Limitations and recommendations

Despite the fact that the results of this study led to new insights, there are a number of limitations that must be considered when interpreting the results of this study. Due to a relatively short time span, this case study was limited to one company and two educational organizations. In both cases, useful results came out of this, and some overlap could also be seen in motivations for applying the A3 approach. Even though this overlap seems to be logically explained by the proven added value of the A3 approach, this study is too limited to draw conclusions from the comparison between the motivations for choosing the A3 approach within private and public organizations.

It is also important to mention that in private company X, the A3 approach has not yet been actually implemented. The company showed great interest in the A3 approach and sees it as something that could definitely be used in the future. However, the short duration of the research made it impossible to also get a picture of actual experiences with the A3 approach within private company X, so the research relies on the company's expectations about the use of the A3 approach rather than practical experiences. The motivations and experiences of educational organizations X and Y do rely on actual experiences. Once the A3 approach is actually put into use by private company X, it would be possible to look at possible similarities in experiences and motivations between organizations in the public sector and in the private sector.

In addition, the outcomes of the case study at private company X do not guarantee the same outcomes within other companies. Depending on the specific needs of each company or organization, the motivations for applying the A3 approach may differ. Future research could show what possible other motivations are for applying the A3 approach, and to what extent these motivations depend on specific needs and characteristics of

organizations. For example, the effect of size, or sector differences between organizations on the motivations for applying the A3 approach could be investigated.

The specific focus on diagnostic control systems did not lead to a useful result in this study. The participating organizations in this study differed in such a way that no general conclusions can be drawn about the influence of diagnostic control systems on the motivations for applying the A3 approach. In order to get a better understanding of the actual influence of diagnostic control systems, more research should be done in the future to investigate the relationship between diagnostic control systems and motivations for applying the A3 approach.

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9. APPENDIX

9.1 Interview questions educational organizations

- What is your personal commitment to the A3 approach?
- What was the reason for the organization to choose the A3 approach (motivations)?
- What is the experienced added value of the A3 approach? Can you focus that on the three pillars of the A3 approach?
 - A3 annual plan
 - A3 management dialogue
 - A3 digital support
- What are areas in the use of A3 that could be improved internally?
- A method is used a lot if it is also experienced as fun. How do you keep working with the A3 approach exciting? How do you keep the attention or the energy on it? (attractive)
- Who are the most important 'drivers' in your organization and how do they do this? (leadership)
- What was the best moment concerning the application of the A3 approach? (inspiration)
- Have there been incidents or problems with the use of the A3 approach? (Critical incidents)
- What is your most important recommendation for other educational organizations?
- How would you rate working with A3 on a scale of 1 to 10?

9.2 First round interview questions private company X (T0)

- To what extent is strategy implementation a conscious process within your organization?
 → Could you rate the awareness with a number from 1
 - to 10?
- What method do you currently use for strategy implementation?
 - Do you have a method \rightarrow what does it look like? No method \rightarrow what are the main principles and procedures?
- What is the main reason for adopting the current approach (motivations)?

- What are the most important aspects of the current approach for your organization and why? Could you possibly give an example to illustrate why this is important?
- What are the internal points of attention or areas for improvement (improvement)?
- Does your organization make use of annual plans, and if so, how are they shaped?
- To what extent are employees involved in the development of the annual plans (strategic objectives) and how are they informed once those plans are formulated?
- How do you keep working with the strategy approach exciting? How do you keep the attention and energy on it? (attractive)
- To what extent do you differentiate between measurable results versus efforts? Explained: should an action always be linked to a measurable result?
- How are employees informed about interim progress on performance and achievements?
- To what extent is the strategy recognizably translated into action by employees (are intended plans executed as intended, operationally)?
- Who has a key role in stimulating the implementation of annual plans and how is this done?
- To what extent do you experience a broad involvement in the formulation and implementation of annual plans?
- In what ways are employees involved?
- To what extent is the flow of information connected to the progress on annual plans?
- To what extent do employees have access to the progress information?
- What was the best moment surrounding the application of the strategy method?
- Have there ever been critical incidents with the use of your current annual planning methods?
- How would you rate working with the current strategy method on a scale of 1 to 10?

9.3 Second round interview questions private company X (T2)

- Has awareness around the importance of strategy implementation changed after the A3 introduction session?

 \rightarrow Could you rate the awareness with a number from 1 to 10?

- What are the biggest differences between the current way of working regarding annual planning and the A3 approach? What was the biggest eye-opener, if any?
- What are the main similarities between the current practice regarding annual planning and the A3 approach?
- What added value do you see in adopting the A3 approach? Why would you choose this approach (Motivations)?
- What is/are the reason(s) for not applying the A3 approach as presented? (Motivations)

- Which parts of the presented A3 approach appeal to you the most and why? (Added Value)
- Which part of the A3 approach do you think has the potential to have the greatest impact on your business?
 What about the other two pillars?
- To what extent could the A3 approach provide solutions for the concerns and areas for improvement regarding strategy implementation? (improvement)
- Are there adjustments needed to make the A3 approach fit the requirements and characteristics of the company? If so, which?
- To what extent do you think the annual plans according to the A3 approach have added value compared to the current way of making annual plans?
- To what extent does the A3 approach contribute to the involvement of employees in the development of the annual plans, objectives, and strategy?
- To what extent do you expect that working with the A3 approach can increase the pleasure around strategy implementation compared to the current way of working? If not, how can this be achieved?
 - -> On which elements of A3 do you base this? (attractive)
- To what extent do you think the A3 approach can contribute to improving the company's results orientation?
- To what extent can A3 progress discussions with employees improve communication about interim progress of performance and actions?
 → On what do you base this?
- To what extent can the A3 approach contribute to the translation of the strategy so that it can be translated into action by employees in a recognizable way? (Are intended plans being executed as intendedoperational)
- To what extent can the A3 approach contribute to improving the alignment of information systems with the progress of the strategy?
- To what extent can the A3 approach contribute to improving the accessibility of progress information for employees?
- With what grade would you rate the expected effectiveness/attractiveness of the A3 approach for your company?
 - \rightarrow Can you focus this on the three pillars of A3?

9.4 Interview questions about the diagnostic control systems lever of control

- To what extent are KPI's leading in the formulation of annual plans?
- To what extent and when are adjustments being made on KPI's?
- How do you identify which KPI's are leading in measuring progress?
- How do you measure, monitor, and discuss the KPI's within your organization?

9.5 Recurring concepts during the first and second interview roundRecurring conceptsT0 (first interview)T1 (Intervention)T2 (second interview)			T2 (second interview)
ficcurring concepts			
Strategic consciousness	Low strategic consciousness: "Our current process for annual planning is not very conscious. From my experience, it is more done from a compliance perspective, something we see as an obligation rather than a source for strategic performance." "To be honest, I think that for most people the annual plan feels like an obligation. Four times a year it is being discussed, and it feels like everyone reviews the plan one day before such meetings, then discuss it during the meetings and afterwards don't use it until the next meeting." "There is some difference between departments. Some departments are more dependent on the annual plan than others and thus use annual plans more conscious." "From the R&D department we work a lot with strategic goals from the corporate organization. We are expected to deliver certain outputs. The goals that are set for us, from higher layers in the corporate structure, are becoming our key goals in the Amsterdam annual plan. However, it must be said that we are	"I think that this requires us to become more conscious in formulating our annual plans. The method seems very useful, but I think that everyone should first be convinced about and committed to a different way of thinking about annual plans. The A3 method would not reach its potential if only half of the users is convinced of its added value." In response to the comment made above: "I agree on that, a few years ago we also thought that our approach was going to cause improvements, what we've also told in the interviews: it is currently used very passive and reactive."	Higherexpectedstrategicconsciousness:"I think that the A3 annual plan will contribute to strategic consciousness. The methodology, if applied better than our current approach, can provide us more grip and it enables us to use the annual plan more actively rather than looking at it four times a year.""The fact that A3 requires more co- creation and more frequent management dialogues enhances the strategic consciousness of the organization.""If we manage to successfully implement the A3 approach, we the overall consciousness regarding our annual plan will grow. Going from a rather passive and reactive annual plan to a more interactive method with improved coordination will hopefully increase the focus on the intended plans.""I expect that the implementation of A3 will generate more detailed agreements and it will be clearer what should be done under what circumstances. This will contribute to more decisive and effective annual plans."
Method for annual	dealing with goals from the corporate strategy rather than developing our own strategic paths." Annual plan in Excel:	the A3 approach to make it successful."	A3 approach:
plans	"The annual plan that is currently being used via Excel is in fact a derivative of the A3 plan. A few years ago, I saw an example of the A3 annual plan, and it appealed to me. We started to create our own version in the Excel sheet. However, over the years, the process became highly standardized, and it is not something that we are working with very actively. Only when we have quarterly meetings in which results are discussed, the Excel sheet is updated, and it is adjusted only when necessary. My personal experience		"It is not 100% clear yet if we will implement the A3 approach, but during the intervention we have all seen the added value it could deliver."

9.5 Recurring concepts during the first and second interview round

	"As described in earlier questions, employees are barely involved, and the flow of information is rigid. I think that there are many people that don't really know where we are."	"It seems that the digital A3 tool as currently presented makes it a lot easier to share information."	"If we manage to formulate clearer plans and put more effort to generate company- wide awareness of those plans, it will generate broader-understanding of what we want and how we want to achieve it throughout the company. This is something on which we are currently
Degree of transparency	Low transparency:	Improvement expectations:	Potentially higher degree of transparency:
	"Important to note is that for an organization like ours, it is not always easy to involve employees from all layers of the organization in the formulation of goals and plans. However, I do think that it would be possible and that it would have a positive effect to somehow increase employee involvement."		
	"For our R&D department, employees only have influence in determining a realistic time span for the goals we set. Most goals at R&D originate from corporate goals. As R&D, we are required to deliver specific outputs, new ideas etc. These are all goals that are decided by higher management, without the involvement of employees."		 mings should be only decladed by top management. However, I do think that the clearer formulation, higher visibility, and co creation of plans lead to higher perceived employee involvement." "If more employees are able to quickly understand the annual plans and the alignment between goals etc., I think that employees become more aware of what they could contribute." "If we increase our meeting frequency and also involve our employees from bottom-up more, this could lead to improved production and better solutions to problems, since people on the work floor have a better understanding of specific problems."
	"I think that especially improvements or solutions for problems in production could be achieved if we increase the involvement of employees from bottom to top."		
	"The formulation of the annual plan is almost completely restricted to the top layer of the company. I would describe it as very top to bottom. Some people can fill out their own KPI's, but these should fit to the goals from above."	developing and improving annual plans will be a huge improvement compared to our current way of working."	
Degree of employee involvement	Low employee involvement: "Currently, employees are barely involved in the formulation of plans. It is a process that lies in the hands of management and the heads of departments."	Expressed enthusiasm "What seems really interesting to me is the more intensive and interactive conversation cycle. Adding more people to the process of	Somewhathigheremployeeinvolvement:"I think that the adoption of the A3"I think that the adoption of the A3methodology could lead to somewhathigheremployeeindicated in the first interview; somethings should be only decided by top
	"The use of annual plans is a bit shredded at the moment. The general annual plan is formulated through Excel, and each department adds its own annual plan. However, some annual plans (department specific), are only presented through presentations. Besides this, there are two other systems in use, but those are not adopted company wide. This makes it rather confusing than clear."		
	is that after those meetings, the document is not really used until the next meeting."		

	"Very restricted access to information and hard to understand the links between all loose ends of information."		lagging. People are mainly aware of their own tasks, so I believe that higher transparency can help us realize our goals better and more efficiently." "What really appealed to me during the intervention is the digital A3 tool. If we could translate our plans well into this tool and make it accessible for the right people, it would be a huge improvement on transparency."
Frequency of management dialogues	"If we talk about dialogues that are purely aimed at the progress on annual plans this is only done quarterly through a small presentation of the CEO. The progress meetings regarding the annual plan are done on a quarterly basis and the experience is that those are not really interactive."	"I think that the frequent management dialogues as explained by Dr. Doeleman are crucial for the successful adoption of A3. If we fail to set up a frequent and interactive conversation cycle, I expect that the A3 not add most of its value."	"Besides the A3 digital tool, I think that the frequent management dialogues that were explained by Henk Doeleman will also increase the effectiveness of the annual plan. If we are working with it/on it more frequently in more interactive meetings it will surely improve the quality and usefulness of our annual plans." "By having meetings on a more frequent basis in which we discuss the progress on the plans and assess what adjustments should be made, with more attendants, the annual plan is used pro-active and leading instead of passive and reactive."
Use of information systems	"Of course, every department uses different systems to measure performance, outputs etc. There is not a central information system in which most important progress information is captured. The excel sheet is updated by the people who are responsible for the goals, but this is not a real information system. It would be ideal to have a more central tool in which the key information is visible for a wider range of employees." "If I reflect this on our annual plan in Excel, there is a lot of loose information. People have to make the links themselves, instead of having clear connections in our plan." "For our sales department, we do use tools that display information on personal development and developments within the department. This is something that was initiated from higher up the corporate organization. However, it does not align well with the rest of our location in Amsterdam."	"It seems that the digital A3 tool as currently presented makes it a lot easier to share information." "From what I have seen now, it seems that the creation of annual plans in the digital tool is very intuitive. A big difference with our current Excel sheet."	"During the intervention, it was especially nice to see how the digital tool could be used. The interconnectivity of the tool makes it easier to see what impact certain actions have on particular goals. The ability to link goals easily to our critical success factors, the annual plan becomes a more integrated and interconnected plan." "Also reflecting on the first interview, in which it was indicated that there is a lot of loose information of which connections are hard to be made, I think the digital tool can provide more overview of those connections." "Although we cannot only use one information system, it would be a nice improvement to have most important progress information central in one tool, visible for every relevant employee." "A big pro of the digital tool is the fact that you can select who can see what and who can change what. This way, we are more flexible in sharing information. Besides this, it is easier to update and keep track of progress."

			"The use of KPI's and graphs that show progress within the digital tool provide better overview of information and it makes it easier to understand and analyze."
How are employees updated about progress of plans	No frequent updates: "At this moment, updates about progress are barely done. Only through presentations in so-called townhall meetings some employees are updated on plans. "At R&D we work on a project basis more often. This obviously requires more monitoring and updates, so I would say that there is more communication for these plans. But referring to the annual		
Information access	plan, I would not say that employees are updated on a regular basis. Moderate/bad access to information: "I would describe the flow of information as rigid now. Between departments, few information is being shared and there is a lack of communication on progress between various departments." "Employees barely have access to information on progress. This is restricted to the top layer of the company. Of course, as also pointed in earlier answers, some information should only be accessible for management, but I think that a more open access to information can increase the sense of participation among employees."	"The fact that you can select who has access to what information in the online tool makes it easier to provide access to a broader group of employees. It does not necessarily mean that everyone will be able to see every detail but showing relevant information to a broader group of employees results in a broader understanding of what is going on."	"The use of a centralized tool for annual plans makes it a lot easier to access for a wider range of employees. Like already mentioned, the fact that you can select who can see what and who can change what makes it easier to share information."
	"Very restricted. This is not even mainly for confidential reasons. I think that the use of an Excel file just makes it very hard to share information and keep it up to date."		
Degree of consistency	"What I often experience is that we are formulating an annual plan, and we are all putting some nice goals in the plan. But then a new task pops up and we let go the annual plan. Some goals lose priority. And if we have a new quarterly review, people sit behind their laptops and quickly update the annual plan."		"The A3 methodology, if applied better than our current approach, can provide us more grip and it enables us to use the annual plan more actively rather than looking at it four times a year." "Where we now regularly lose focus on initial plans, I think that the right implementation of A3 could help us sticking to our plans and be more consistent."

Coordination between departments	Lack of coordination: "One of the main points of improvement		Expected improvement in coordination:	
	is the coordination between different departments to reach strategic goals. Every department obviously has its own goals, but those goals are hard to coordinate because everyone has different priorities and problems."		"Currently, we experience that the alignment of strategic plans between various departments is difficult. As mentioned in the first interview, each department has its own goals and departments are often working past each other. Although it is simply impossible to	
	"I often experience that we are working past each other. We have limited knowledge of the progress of other departments. Of course, it is not possible to share everything, but I think the alignment could be better than how it is now."		realize full alignment between all departments, I believe that successful adoption of the A3 approach could result in better alignment between apartments through more participation, coordination and transparency. Hopefully this will make it easier for us to stick to- and realize our intended plan."	
	"There are also things we are working on together quite well. Since we are a BRZO* organization, we are often required to do safety and quality audits. To ensure safety throughout the company, it is important that things are coordinated well. I believe that we are doing a good job most of the time."		"I think that the overall process with more conversations, better transparency, more involvement of employees will result in better coordination between departments."	
	BRZO: Besluit risico's zware ongevallen. This is a collective term for organizations in the Netherlands that work with high volumes of dangerous substances above a certain threshold value.			
	"It is often unclear what the expectations are. Who does what, what should he/she use for this? This is also caused by a rigid flow of information."			
Overall grade for the approach	"6/10, in some way we do our best, but there is a lack of coordination and alignment, and we are not monitoring enough. Obviously, every individual tries his/her best, but there is much progress to be made."		"It is obviously not possible to come with a concrete grade for the A3 approach if we have not adopted it yet. However, and I think that I'm repeating myself quite often, I think that the overall approach with the digital tool, more frequent dialogues etc. could be a huge improvement for us. It fits with many	
	"5/10, I think there is very much to be gained. It is all very passive and reactive at the moment. And it is more experienced as an obligation. Within departments, some systems might work better, but if those are not aligned well it still remains unclear."		points that we are currently struggling on."	
Use of diagnostic control systems	"As we are a large company, it is crucial for us to measure our progress and outputs. Since we have concrete goals and required outputs from our corporate organization, it is key to have systems which measure and overview our processes. "	"Are there many possibilities to translate the KPI's into the digital tool? And is it possible to link those KPI's to specific goals or people?"	"Although the online A3 tool provides a lot of opportunities to display and link KPI's, I wouldn't say that the presence of such diagnostic control systems influences our motivations for adopting the A3 approach."	
	"In formulating our annual plans, KPI's are leading. Since we deal with a lot of safety regulations and restrictions, KPI's		"In my opinion, the presence of diagnostic control systems is more of a basic	

are also crucial to keep track of our safety standards. If we do not manage to ensure certain safety levels, this can result in huge problems." "KPI's also tell us when to act on certain issues."	choosing whether to	provided poor options for diagnostic
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9.6 Gioia Analysis of the interviews at private company X

First order concepts	Second order themes	Aggregate dimensions
Currently, the information on progress is very restricted to management. (T0) Although there is only one general annual plan, there is a lot of difference between departments on how they display information. It would be better to have a central tool for tracking progress. (T0) If we manage to use the digital A3 tool for tracking progress and creating a clear overview of goals, it becomes more accessible for employees. (T2) The fact that in the digital A3 you can select who can see what and who can change what makes us more flexible in sharing information. (T2)	Better information access	
With our current annual plan in Excel it is sometimes difficult to see connections of goals to actions and results (T0) The A3 digital tool creates more alignment between goals compared to our current Excel sheet. (T2)		
The tool clarifies what the goals are and how those goals are linked to critical success factors. (T2)	Better visualization of information	Increasing transparency
The use of colors within the tool makes things a lot clearer. (T2) The use of KPI's and graphs that show the		
progress makes information easier understand and analyze. (T2 The use of associations in the digital tool improves alignment between results and strategy, and actions with results. (T2		
By being able to see what goals and plans from other departments are and how they are progressing through one general online tool makes it more transparent for everyone. (T2)		
What we see now is that there are unclear expectations. This is caused by a rigid flow of information, and it makes it harder to decide what should happen and by who it should be done. (T0) More detailed plans will make it clearer how	Clearer tasks	
we should act in different scenarios. (T2) Instead of having all loose parts of information and being forced to see connections by yourself, it would be much clearer if connections are visible in one blink of the eye. (T2)		
Currently, employees are barely involved in formulating and discussing the annual plan. (T0) For R&D, some employees only have		
influence in determining realistic time spans		

for the goals that are formulated. However, in terms of content, those employees barely have influence. (T0) The inclusion of employees on the work floor in the formulation of plans could improve production processes. (T2) Co-creation of plans will increase the feeling among employees that they can contribute to bigger goals. (T2) Employees on the work floor have a better understanding of specific production problems, and thus could provide better solutions (T2) If we manage to reach overarching goals as a group, this will increase the perceived contribution, which increases satisfaction. (T2) Currently, our annual planning process is more done from a compliance view. It is rather seen as an obligation than a source for strategic	More employee involvement in formulating and discussing the annual plan	Increasing participation
 performance. (T0) Everyone opens and updates the plan a few days before the management review, then we discuss it, and it disappears until the next meeting. (T0) Over the years, our approach for annual plans became more standardized and passive/reactive (T0) The A3 method, if applied well, could provide us more grip over the plans. (T2) If the plans are more co-created, with a wider variety of employees, people will be more aware of the plans that we are working on. (T2) By seeing the annual plans more as a method for structured improvement rather than as a compliance task, employees will likely be more conscious about the plans, and they will know better how to contribute (T2) 	Increasing strategic consciousness	
Currently, there are only a few meetings per year in which the progress on annual plans is presented. Those quarterly townhall meetings are rather passive and restricted to only the top layer of the organization. (T0) The formulation and discussion of progress of the plans should become a more deliberate process in which we critically assess what goes right and what goes wrong. (T2) Plans work more effectively if discussed more often. (T2)	More frequent and more interactive conversation cycle	Increasing consistency
In order to stick to our plans, there should be more alignment between departments in the formulation of strategic plans. (T0) We should share more information between departments. (T0) Departments have to keep working together to ensure the required safety standards. (T0) Expectations should be a lot clearer. Who works on what and what does he/she need for this? This is partly caused by a rigid flow of information. (T0)	More alignment between departments	