Methods of studying strategizing practices as determinants to effective organizational outcomes: A critical study

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ABSTRACT

This study discusses the research designs and methodologies that are used for studying strategizing practices as determinants to effective organizational outcomes. The study aims to offer future research guidance for their design of research into the effectiveness of a strategizing practice. Currently, there is no research into what research designs and methodologies have been used in published articles regarding strategizing practices. This study fills the gap by offering researchers an analysis of the methods and research designs of published articles. The research designs of sixteen selected articles considering the empirical research regarding an effect of strategizing practices were analyzed by conducting a systematic literature review (SLR). Furthermore, a total of nine interviews have been conducted with users of different organizations using a strategizing practice. By conducting both an SLR and empirical research, the theoretical and practical perspective are combined in one study. The SLR will offer an insight into the research designs that were used in previous research. Among the valuable insights are also the implications for future research designs that were made by those articles. By combining these findings with practical insights, it is possible to offer a complete picture of what future research design best fits with theory and practice. Moreover, it is an insight into what kind of research design possible research participants would be most willing to participate in. The research concludes by opting for a prospective longitudinal qualitative research design, while making use of a mixed or multi method approach. Interviewees are clear about their preference for the use of interviews as research method, possibly posing a challenge to finding participants when opting for a mixed or multi method approach. Furthermore, it is important to consider the extent of the research and motivations for an organization to participate in a research. Also the organizational characteristics regarding to size and public or private fundaments are of importance when starting a research.

Keywords: *Strategizing practices / Management practices / Strategizing tools / Research design / Research methods / Effects / Strategizing / Research*

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Introduction

This research consists of a study into the methods used to study strategizing practices as determinants for effective organizational outcomes. Strategizing practices is a comprehensive concept, considering the practicing of for example strategizing tools (Jarratt & Stiles, 2010). These strategizing tools are methods and models that offer guidance to organizations for the implementation of strategies in the organization (Doeleman *et al.*, 2022; Weiser *et al.*, 2020). According to Vuorinen *et al.* (2018, p. 587) "strategy tools can be instrumental problem solvers, information generators, inspirers of social interaction, or constructors of strategy work. Tools may also be used to structure information and provide a foundation for the strategic conversation. Tools can also support different functions simultaneously and be used on individual, interpersonal, organizational, and societal levels."

Background and relevance

Publishing research in journals means a great effort of scientific research and the design of a sophisticated research methodology. Research on strategizing practices entails the proving of an effect caused by the strategizing practice. Such a research can consist of qualitative or quantitative research, but there is no clear path leading to a successful research into the effectiveness of strategizing practices. This leaves room in the scientific field for a research into the methods used to study the effectiveness of strategizing practices that eventually lead to effective organizational outcomes. This research aims to contribute a methodological advice to academics and researchers who aim to conduct a research into the effectiveness of a strategizing practice. By doing so, this research aims to fill a gap in current scientific literature regarding methodologies and research designs used for proving the effectiveness of a strategizing practice. This research is initiated to create a better insight into the requirements for 'strategy-as-practice' research to publish in top ranked journals. More specifically, this research originated from the question of the researchers of a Dutch broad adopted strategizing practice who are interested in the requirements needed for their study of the strategizing practice to fulfil the demands of top ranked journals.

Due to Dr. H.J. Doeleman being one of the supervisors of this research, there is a close and apparent connection to his strategizing practice, the A3 approach. The A3 approach is a constellation of three (open) strategizing practices. Open strategizing is, according to Hautz et al. (2017, pp. 298-299), "a dynamic bundle of practices that affords internal and external actors greater strategic transparency and/or inclusion, the balance and extent of which respond to evolving contingencies derived from both within and without organizational boundaries" (Hautz et al., 2017). Within the concept of open strategizing practices we find three closely related strategizing practices that are relevant to the background of this study.

Namely, the A3 approach (Doeleman *et al.*, 2022) and two other related conceptualizations: strategy-as-practice (Berisha Qehaja & Kutllovci, 2020; Jarzabkowski & Spee, 2009; Kohtamäki et al., 2021) and strategizing (Rouleau *et al.*, 2010). Strategy-as-practice relates back to the 90's, where strategizing shifted from a core corporate task to a core competence of a manager being the strategist. The three studied strategizing practices followed the path of planning and became a practical task of managers to perform (Whittington, 1996). According to Bowman (2016, p. 79), strategizing traditionally "concentrates on formal, structural analysis, utilizing binary logics to frame strategic decisions".

For this research the three (open) strategizing practices, as proposed by Doeleman et al. (2022), cover and relate to the different conceptualizations that are used in scientific papers for addressing the topic of strategizing practices. However, there is a significant controversy in the difference between strategizing practices and strategy implementation. Strategy implementation refers to the actual practical implementation of the strategizing practice or, as defined by Yang *et al.* (2010, p. 165): "activities by managers and employees to turn strategic plans into reality in order to achieve strategic objectives" (Yang et al., 2010). The differences between strategizing practices and strategy implementation are also addressed by Weiser *et al.* (2020) who call for researchers to examine the continuous interplay of conceptualizing, enacting and coordinating strategies at multiple hierarchical levels and in multiple organizational units simultaneously (Weiser *et al.*, 2020). Moreover, Leonardi (2015, p. 20) argues: "the line between strategy formulation and strategy implementation is not very clear. To materialize a strategy is to focus on the materiality through which the strategy is enacted" (Leonardi, 2015). To conclude, there are no clear parameters to which extend the two perspectives are intertwined or should be considered separately. When using a strategy implementation model in line with the three open strategizing practices there is an interplay between the creation and development phase of the strategy, with strategy implementation considered to be the execution phase.

Among the different (bundles of) strategizing practices are many similarities, for example between the A3 approach (Doeleman & Diepenmaat, 2014) and the strategizing practices of Hoshin Kanri (Akao, 1991; Akao et al., 2020; Tennant & Roberts, 2001; Witcher, 2014; Witcher & Butterworth, 1997) and strategy mapping (Kaplan & Norton, 2008). The A3 approach is the European interpretation of the Hoshin Kanri model, a lean open strategizing practice. Both practices aim for a clear and agile open strategizing practice with a focus on the key strategic priorities (strategy map). Furthermore, all three strategizing practices include (alignment using periodical conversations) the full organization in the strategizing and make participants responsible for the success (integrating and reviewing). Also, both Hoshin Kanri and A3 approach rely heavily on transformational leadership which enables organizations to push for a continuous improvement culture. There are, however, differences as the A3 approach hands practitioners more concrete guidance related to mission, vision, key success factors, performance areas for stakeholders and areas for action. In strategizing practices research there is not always a clear name of the model or tool that is being researched, like we see with the A3 approach. The articles that are included in this research are not always regarding a clear method or tool but discuss the research of a phenomena that is used in practice like a strategizing practice. Thus, the definition of a strategizing practice does not always entail a concrete model or tool with a name. However, the research can be captured under a name by taking the core research objective of the effectiveness research. A name can be helpful to gain an overview of the strategizing practices researched and provide a concise overview to the reader. The name can be found by asking the question: ‘from what is the effectiveness measured?’

Research question

As there is limited amount of research regarding research designs of strategizing practices available. It is important to analyze previously published research about the effectiveness of strategizing practices. By researching these articles we can analyze how researchers have designed their research, what conclusions they have drawn and what possible implications were made by the researchers for future research in the field of measuring the effectiveness of a strategizing practice. To create a more comprehensive insight into the research designs of empirical research regarding strategizing practices, the following research question will be central during course of the research (Table 1 presents an overview of all research question): ‘What research design and methods are being used in (studying) strategizing practices published in relevant top management journals?’ To further split the central research question into contributing parts for the answering of the central question, 4 sub-questions were formulated.

The first sub-question focusses on the research design and methods used to measure the effects of strategizing practices. The first sub-question is: ‘What research design and methods are used in researching the effectiveness of strategizing practices published in relevant top management journals?’ The answer on this sub-question is the basis of this study and results in a table addressing: the author, the name of the top management journal, research topic, theoretical relevance, research method, (future) implications and results.

The second and third sub-questions are: ‘Are there differences between the strategizing practices for public and private sector organizations?’ and ‘Are there differences between the strategizing practices depending on the size of the organization?’ These sub-questions will address more specific insights of the published strategizing practices. Answering these two questions this thesis will discuss whether there are differences in the strategizing practices for public and private organizations and the role of the size of participating organizations in the articles researched.

Willingness to participate (Parent et al., 2011) and response rates in management research (Anseel et al., 2010; Bednar & Westphal, 2006) is a relevant topic. The fourth sub-question is: ‘What are motivational factors for contributing to a research for the effectiveness of strategizing practices?’ This sub-question is the empirical part of this research. This part is added to get a better insight in the willingness among companies to contribute to a research into the effectiveness of strategizing practices. By combining sub-question one and four it is possible to compare the research designs are proposed in literature and what research designs potential participants are willing to contribute to.

Table 1 Research questions

Research question:	What research designs and methods are being used in (studying) strategizing practices published in relevant top management journals?
Sub-question 1:	What research designs and methods are used in researching the effectiveness of strategizing practices published in relevant top management journals?”
Sub-question 2:	Are there differences between the strategizing practices for public and private sector organizations?
Sub-question 3:	Are there differences between the strategizing practices depending on the size of the organization?
Sub-question 4:	What are motivational factors for contributing to a research into the effectiveness of strategizing practices?

Research type

This study relies on two major research methods, a systematic literature review (SLR) regarding the effect of strategizing practices on organizational outcomes and an empirical study into the expectations of organizations in contributing to a research regarding the effectiveness of a strategizing practice. The results of this research present an insight in what articles, considering empirical research regarding strategizing practices, published in selected journals and how researchers assure their quality of the research design and methods. Strategizing practices, the topic of this study, are part of the broader concept of management practices. ‘Management practices’ are the efforts of company management to lead their organization in its activities. The way of working is partially affected by management theories that create frameworks and models for organizational management to follow (Ghoshal, 2005; Mcgill et al., 1992). The empirical part on the other hand provides a practical insight into the willingness of organizations to contribute to studies regarding the effectiveness of strategizing practices.

Methods

As mentioned before the research relied for a large part on qualitative desk research as the source exists of published articles in top management journals considering strategizing practices. The expectation is that the published articles reveal how they have managed to measure the effectiveness of their strategizing practice. Therefore, it is highly important to follow a systematic way during the selection process of the articles (Danese et al., 2018). After the SLR phase (Phase 1) interviews were executed at possible participating organizations in the research (Phase 2). In these semi-structured interviews the motivational factors for participating in an effect study of their strategizing practices.

Phase 1: SLR approach

The method of analyzing the articles' research designs is based on the approach of Wolfswinkel et al. (2013) and shows large similarities to the research of Vuorinen et al. (2018). In the research of Vuorinen et al. (2018) a SLR is conducted to research specifically strategy tools over the past 25 years and further research the toolbox of strategies (Vuorinen et al., 2018). Although this research and the research of Vuorinen et al. (2018) are not exactly similar, they do show similarities in their approaches. Having used a similar approach to collect, summarize and analyze the selected articles as a well-respected article indicates the use of a proven and trusted method. The SLR follows the 5 step approach of Wolfswinkel *et al.* (2013) for rigorously reviewing literature. Following this approach the search string was developed and the sample was refined until the sample consisted of only the most relevant articles (Wolfswinkel *et al.*, 2013). The research of Wolfswinkel *et al.* (2013) consists of 5 steps: define, search, select, analyze and present the results of a literature review study. As suggested by Wolfswinkel et al. (2013) the method is used as a guideline and aims to serve the 'flexibility is key' perspective.

In the define phase the first limitations for articles are included. The define phase describes limitations like: minimal impact factor score of the journal and amount of citations. These are being called the inclusion and exclusion criteria. Furthermore, the define phase describes the fields of research and sources that will be used. Lastly, a search string was created including the keywords on which the research was based and the fields of research from where the articles were sourced.

In the search phase the actual search in the database(s) was performed, in this phase it was still possible to make adjustments to the search string which serves as feedback loop to the define phase.

During the selection phase the sample was exhausted by using the inclusion and exclusion criteria and reading the abstracts to decide upon the relevance of every specific article to the SLR. After the selection phase there was left a relevant collection of articles.

In the analyze phase the selected articles were scanned to find relevant findings and insights to the research scope.

The method ends by presenting the results found during the process while considering the 'why, what and how' principles. The overall structure and principles will help to realize a considerable amount of logic in the paper. Shown in the flowchart (Figure 1) is the systematic process of the creation of the source. Furthermore, the flowchart shows an extra inflow of articles that were found outside of the search string. These outside sources will mainly be used for introduction, conceptualization or offering solutions, however, experts in the research area can advise to include other papers of importance as well. To increase the skills of reading and analyzing scientific articles, two papers were relevant: Bogucka and Wood (2009) and Purugganan and Hewitt (2004).

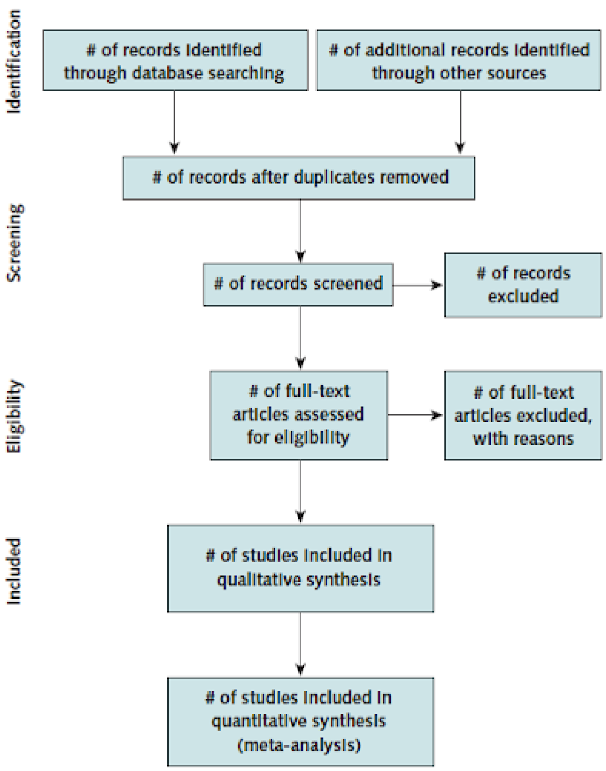


Figure 1 Flow of information through the different phases of a systematic review (Moher et al., 2009)

Below the five phases of the SLR research are described.

Define

The search string started with establishing the keywords that were used as fundament of the SLR research. To create a search string with relevant keywords a collection of 20 relevant articles regarding strategizing practices in top journals were analyzed. All of the keywords have been collected in a database resulting in a number of keywords that were used most frequently. The most frequently used keywords were then analyzed together with the research supervisors (who are experts in the field of strategizing practices) resulting in eliminating and adding several keywords. Furthermore, the search string was limited to articles published in the subject areas of social sciences and business, management and accounting. To focus the research even more, only article document types, journal source types, published articles, articles in press, English written publications and articles published in and after the year 2010 were included in the research. This research is focused on the future perspective, therefore, only recent articles are relevant for the SLR. Due to constant changing demands and formats from journals for the publishing of scientific research, recent published articles give more relevant results regarding implications on future research designs.

As this research focuses itself on strategizing practices published in top ranked journals an important limitation is the journal impact factor. To make the search string manageable considering the limited resources of time and one researcher it was decided upon to only use the Scopus database. The researcher was familiar with Scopus and creating search strings for a SLR in this database. With other databases the research was not as such familiar and, therefore, it was more straight forward and safe to use Scopus. Because only Scopus was used also the SCImago journal rank, the journal impact factor indicator of Scopus, was used to analyze the journals in the search string. The SCImago journal rank results in the SJR 2020 scores that is measured by weighting citations received by the serial, depending on the subject field and prestige of the citing serial. Analyzing the SJR 2020 scores resulted in a systematic approach on deciding upon the minimal journal score to limit the research to. The database resulted in an overview of over 150 journals who published an article related to the search string. Roughly, the top quarter of this database represented close to 40 journals that had an SCImago journal rank of over 2. By limiting the search string to the above mentioned limitations a total number of 221 articles resulted as matching to the TITLE-ABS-KEY.

Search

During the search process the scale of the source became clear when using the first search string drafts. It became apparent that the search string had to be limited to make the source size more manageable. To downsize the source back to a manageable size the amount of keywords had to be cut. This process included the expertise of the two experts described above in the define phase. The keywords were limited and the new search string resulted in a considerable smaller amount of search results that had a much more specific focus on articles that were relevant to this research specific. Furthermore, it was decided to use the asterisk function. Meaning that a word such as strategizing was written in the search string like ‘strategi*’. The * symbol, called an asterisk, makes the search engine to search on all words that continue after the abbreviation. For this research the use of an asterisk is very relevant as it includes both American (strategizing) and British (strategising) articles into the research. The definite search string resulted in the following basis, the basis excludes the journal names as this would practically not benefit the outline of this document (break down show in Table 2):

‘*TITLE-ABS-KEY (“Strategy-as-practice” OR “strategy execution” OR “strategy mapping” OR “strategy implementation” OR “strategi* practice*” OR “strategic control”) AND (LIMIT-TO (SRCTYPE , “j”)) AND (LIMIT-TO (PUBSTAGE , “final”) OR LIMIT-TO (PUBSTAGE , “aip”)) AND (LIMIT-TO (DOCTYPE , “ar”)) AND (LIMIT-TO (SUBJAREA , “BUSI”) OR LIMIT-TO (SUBJAREA , “SOCI”)) AND (LIMIT-TO (LANGUAGE , “English”)) AND (LIMIT-TO (PUBYEAR , 2022) OR LIMIT-TO (PUBYEAR , 2021) OR LIMIT-TO (PUBYEAR , 2020) OR LIMIT-TO (PUBYEAR , 2019) OR LIMIT-TO (PUBYEAR , 2018) OR LIMIT-TO (PUBYEAR , 2017) OR LIMIT-TO (PUBYEAR , 2016) OR LIMIT-TO (PUBYEAR , 2015) OR LIMIT-TO (PUBYEAR , 2014) OR LIMIT-TO (PUBYEAR , 2013) OR LIMIT-TO (PUBYEAR , 2012) OR LIMIT-TO (PUBYEAR , 2011) OR LIMIT-TO (PUBYEAR , 2010))*’

Table 2 Search string limitations

Limitation	Limited to
Keywords	Strategy-as-practice, strategy execution, strategy mapping, strategy implementation, strategi* practice*, strategy mapping and strategic control
Source type	Journals
Publication stage	Final and Article in Press
Document type	Article
Subject area	Business, management and accounting and social sciences
Language	English
Publication years	2010 – 2022
SCImago journal rank	2+

Selection

After using all the search string limitations, the further selection process starts with analyzing the full source regarding to the titles and abstracts. Due to the limitations being very extensive it was not necessary to review additionally the journal in which the articles were published. Analyzing just on the basis of titles and abstracts makes the process more fluent as the analysis can be conducted faster. All of the selected articles were then collected into a file which formed the main source for the SLR. From this main source of 221 articles, 78 articles were highlighted as being relevant for the goal of this research.

Analyze

The analyze phase is intertwined with the SLR writing as the main source was used during the process of writing the SLR. The analyze phase does start with reviewing and analyzing the selected articles in more depth. However, during the research for the sub-questions in the SLR the source was researched again. Therefore, the analyze phase should be seen as an ongoing process during the SLR. For the main theoretical data source a thorough analysis was needed of the full article. The articles that were included in the theoretical data source had to meet two specific requirements, namely, existing out of *empirical research* and covering some type of a *strategizing practice*. In this way it was possible to analyze how the authors of the articles had measured the effect of the strategizing practice discussed in their article. Out of the 78 selected articles only 16 articles considered the research into the effectiveness of a strategizing practice. An expert in the field of strategizing practices (Dr. H.J. Doeleman) was asked to review the 16 selected articles to double check if the articles considered a research into the effectiveness of a strategizing practice. The analyze phase, more specifically, consisted of the analysis of the research designs used by the selected articles. During this analysis one type of model for comparing the different research designs was needed. The 'research onion' (Figure 2) of Saunders et al. (2019) was used during the analysis to categorize all research methods on equal levels.

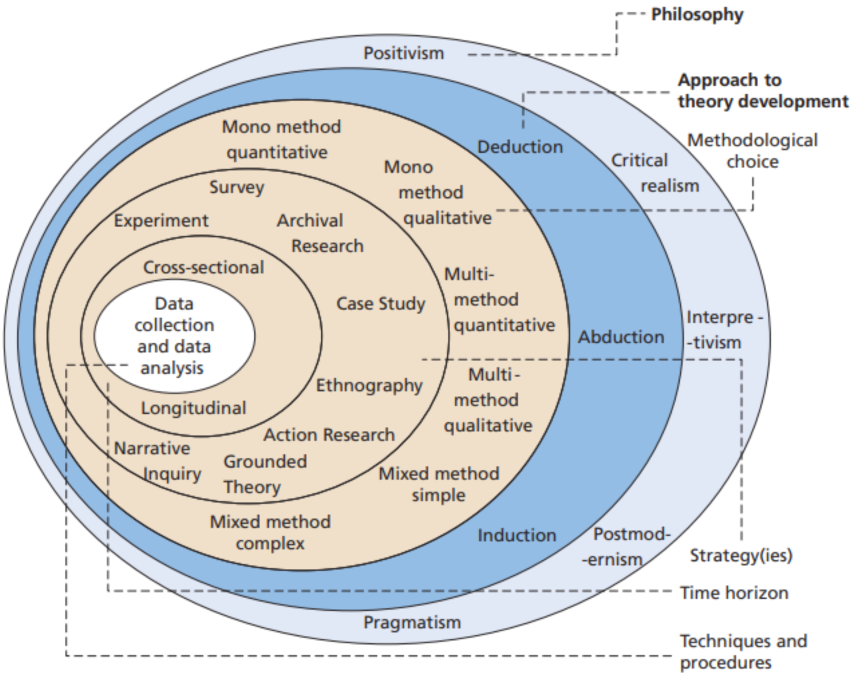


Figure 2 research onion

Present

The final reference list retrieved from the main source limited itself only to the articles that were included into the SLR. These articles will include both the sixteen articles analyzed for their strategizing practices as other articles that were used in the research from the original search string being relevant in some other way. The definitive process of rigorously reviewing an article is pictured in Figure 3, the flowchart pictures the number of articles that were eliminated during every step of the process. Furthermore, the flowchart includes the amount of articles that was included into the research from outside of the main source.

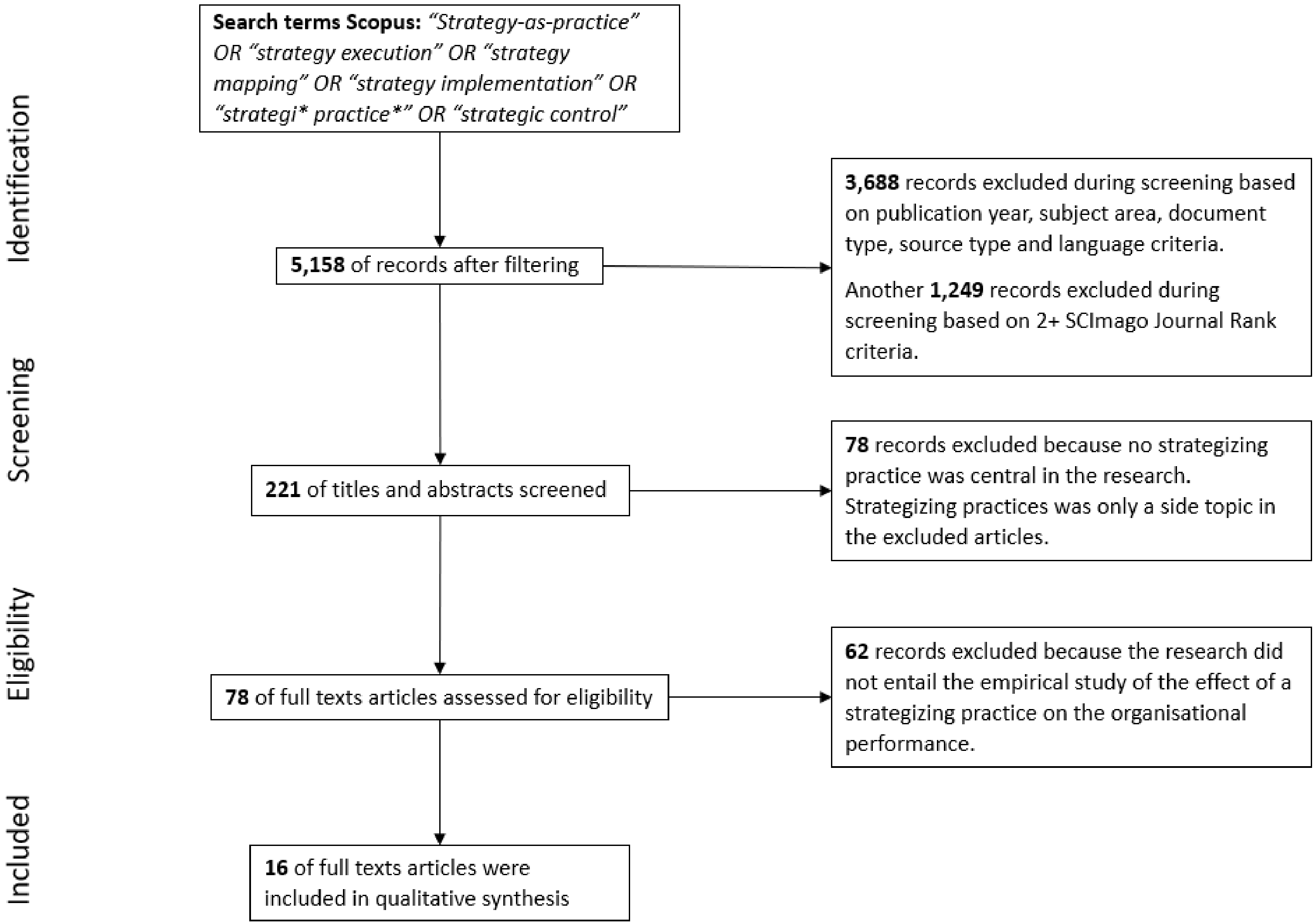


Figure 3 SLR flow

Phase 2: Interviews

For the interviews the research used the A3 approach's users network of public and private organizations. The interviews were held with nine participants of nine different organizations. The main focus of this research is the systematic review of a collection of high quality research papers. Therefore, the interviews should be considered as an extra dimension in the research which contributes to the practical insight. To achieve both a high cooperation rate and high quality data results the interviews were designed to cover only a limited amount of questions that were directly linked to the core of the research.

Sampling and sample description

The average interview time was between 25 and 45 minutes covering around 10 questions but as the interviews were semi-structured interviewees had the possibility to add relevant information to their liking. Combining the selection of leading organizations, in different sectors, using the A3 approach with a concise and high quality interview, contributed to the willingness of participants to contribute. Furthermore, the interviews were held among public (7) and private (2) organizations from which the interviewee was familiar with using the A3 approach. Therefore, the interviews referred to strategizing tools (from which A3 approach is an example) in order for interviewees to better understand the concept. Something that could have caused some confusion when introducing a new concept for the interviewees like 'strategizing practices'. From one interview the recording could not be shared with the research due to IT security, meaning that the findings, except for question 9, could not be included in the results. Below a list of the type of organizations is presented (Table 3). The interviewees had different positions in the organization and also the type of organization differed. Only two type of organizations were represented twice in the research, the municipality and the universities of applied sciences. The size of the organization differed from small (27 employees) to large organizations (3,000 employees) where the average employment period of the interviewees was six years. Furthermore, the age category was distributed from 30 to older than 60 and more males (6) were represented in the research than females (3).

Table 3 Interviewee organization information

Interviewee position	**Type of organization**	**Employees**	**Period of employment (years)**	**Age category**	**Gender**
Quality officer (organization wide)	Municipality	650	3	50-60	Female
Director	IT company	27	8	40-50	Male
Institution director	University of Applied Sciences	400	1,5	40-50	Male
Secretary of the board*	Ambulance organization	256	2	40-50	Female
Secretary of the board	Hospital association	65	24	60>	Female
Business manager	Sheltered employment	1,100	1,5	50-60	Male
Secretary of the board	Elementary school	350	3	30-40	Male
Team manager	Municipality	200	4	60	Male
Head of Education	University of Applied Sciences	3,000	7	50-60	Male

*Recording was lost due ICT security issues, no transcript could be made.

Data collection and analysis

By using the network of the A3 approach user organizations the interviewees were familiar with strategizing practices and were, therefore, able to contribute relevant perspectives to the research. The combination of a concise interview and an existing network proved to be the best chance for a successful result.

For the analysis of the interviews there were two valuable methods considered, as there is not one specific way of coding interviews and the importance of proper coding is very high (Locke et al., 2022) for the end result of the research. The Gioia method was chosen to analyze the interviews in a systematic way as it can direct the interview results towards conclusions and advise within a clear oversight. The Gioia method starts with first order concepts that are converted in second order concepts resulting in the aggregate dimensions. Separating the data into different sections results in an overview of returning patterns (Gioia et al., 2013). The resulting Gioia table is supported by quotes made by the interviewees, this contributes to a large focus from scholars on transparency and trustworthiness during the data analysis process (O'Kane et al., 2021). From the interview format question 9 was split from the remaining questions. In question nine interviewees were asked to rank the research they would most likely contribute to. The only information provided regarding the types of research was a short explanation on what such research entails (no information on time investment or quality was given). The interviewees were then asked to make an analysis for themselves to what research they would contribute most likely while making an indication by themselves on the needed time investment and quality of the results. The interviewer did not make any suggestion or implications in favor of a research. The ranking of the research methods by interviewees was later on subjected to a grading to result in a final list of preferred research methods. As shown in Table 4, the first ranked research method got the highest score (4) and the eight and lowest ranked research method got the lowest score (-4).

Table 4 Rank and score research methods interviewees

Rank:	1	2	3	4	5	6	7	8
Score:	4	2	1	0	0	-1	-2	-4

For the transcription of interviews a transcribe program was used, the University of Twente provides a license for Atlas.it. Using the Atlas.it program made it possible to transcribe the Dutch interviews, something that is not possible with every type of transcribing program.

In a synthesis of the answering first three SLR related sub-questions and the fourth question regarding the motivational factors for participating in an affect study of strategizing practices, the fifth sub-question will be answered: What are suggestions for future research designs regarding strategizing practices?

In ‘Appendix C’ there is a semi-structured interview provided that shows the general line of topics followed during each interview. Furthermore, in ‘Appendix D’ a summary of interviews following the Gioia method is presented.

Results SLR

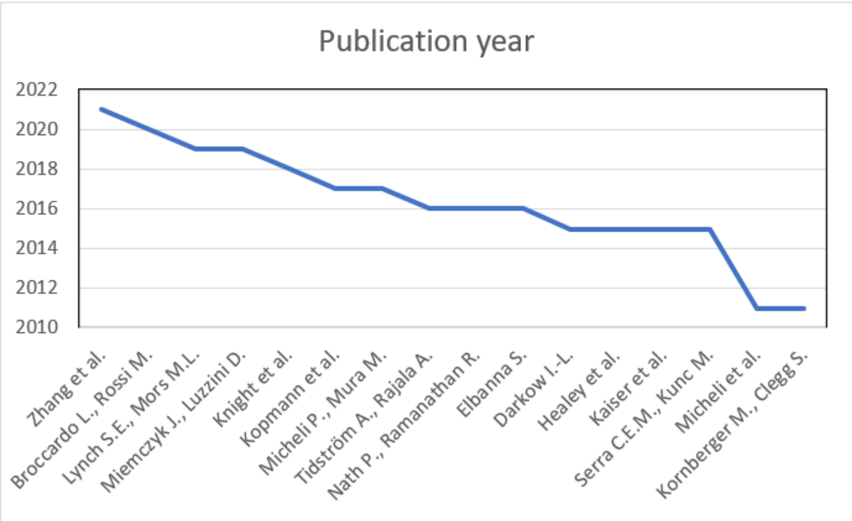
Research designs and methods

During the research for the first sub-question, the search string of 221 articles was exhausted to result in only relevant articles regarding an empirical research into a strategizing practice. After an extensive analysis of the search string sixteen articles that considered the empirical research of a strategizing practice were found. The resulting sixteen articles were then analyzed in depth based on the author, journal, research topic, research method, (future) implications and result to summarize their research design. The tables including the research design, paper details and operationalization can be found in Appendix A and Appendix B. In this section the most significant results of the tables will be discussed. Table 5 includes all of the strategizing practices that are central in the research of the 16 selected articles. As previously mentioned not all of the articles define a clear name for the strategizing practice. Together with the expert all sixteen articles were analyzed to double-check whether the research entails a strategizing practice. The names provided in Table 5 are an answer to the question 'from what aims the article to measure an effectiveness'. This was done to make categorization and identification of the articles possible.

Table 5 Strategizing practices

Reference	Studied strategizing practice
(Zhang et al., 2021)	Technology strategies
(Broccardo & Rossi, 2020)	Strategy map as a tool
(Lynch & Mors, 2019)	Formal structural change
(Miemczyk & Luzzini, 2019)	Triple bottom line sustainability
(Knight et al., 2018)	Visual information
(Kopmann et al., 2017)	Strategic control mechanisms
(Micheli & Mura, 2017)	Comprehensive performance measurement systems
(Tidström & Rajala, 2016)	Coopetition praxis and practices
(Nath & Ramanathan, 2016)	Environmental management practices
(Elbanna, 2016)	Managerial autonomy and strategic control
(Darkow, 2015)5	Foresight-based strategy development approach
(Healey et al., 2015)	Strategy workshops
(Kaiser et al., 2015)	Project portfolio management
(Serra & Kunc, 2015)	Benefits realisation management
(Micheli et al., 2011)	Performance measurement systems
(Kornberger & Clegg, 2011)	Strategy-as-practice

In Figure 4 is a clear distribution of the publication years of the articles pictured. The search string of 221 articles included 136 (61%) articles published in the period 2016 until 2022. This means that only 87 (39%) relevant articles in the search string were published in the 2010-2015 period, although 2022 included not having any relevant articles. The distribution in Figure 4, showing the publication years of the 16 selected articles, pictures a similar distribution regarding the years 2011 and 2015 that are responsible for 6 (38%) of the articles. Overall, there does not seem to be a clear trend regarding the publication years of the articles regarding the publication of articles on the topic of strategizing practices.



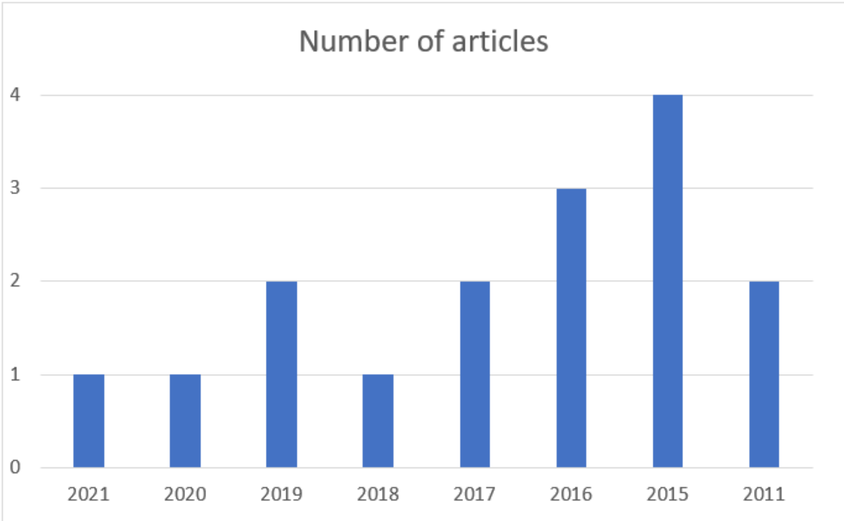


Figure 4 Publication years

The limitations also depicted that only journals in business, management and accounting and social sciences with a SCImago score of over two were to be included in the search string. Nevertheless the limitations resulted in 39 journals with a SCImago score of over two. The sixteen selected articles were distributed over twelve (Table 6) of the 39 journals, which implicates a relative large spread in the sample. Six articles were published in two journals, the other ten articles were published in individual journals. The fact that the articles are spread over a wide variety of journals contributes highly to the relevance of the research results to research designs and the publication requirements in general. If the articles show similar research designs and implications in different journals the research can implicate that the conclusions can be generalized for journals meeting the limitations as depicted above.

Table 6 Overview of journals

Journal name:	Articles in journal:
International Journal of Operations and Production Management	3
International Journal of Project Management	3
British Journal of Management	1
Industrial Marketing Management	1
International Journal of Entrepreneurship and Small Business	1
International Journal of Production Economics	1
Journal of Business Research	1
Long Range Planning	1
Strategic Management Journal	1
Strategic Organization	1
Technological Forecasting and Social Change	1
Tourism Management	1

The selected sixteen articles differed in the methods that were used during the research. Not only was there a difference in the methods for data collection, there was also a difference in whether articles used a mixed methods approach or a multi methods approach.
A mixed methods approach considers explicitly the combination of both quantitative and qualitative data analysis like for example surveys and interviews (Tashakkori & Creswell, 2007). The multi methods approach, on the other hand, entails the combination of several data sources in the research not depicting on whether it being multiple qualitative or quantitative research methods (lewis-Beck, 2011). Out of the sixteen articles, eight articles used a mixed or multi methods approach for their data collection (Darkow, 2015; Kaiser et al., 2015; Knight et al., 2018; Kornberger & Clegg, 2011; Micheli et al., 2011; Serra & Kunc, 2015; Tidström &

Rajala, 2016; Zhang et al., 2021). The mixed or multi methods approach includes only the combination of survey, interview, archival research and/or observations. There is no more specific information available to reliably analyze regarding the distinction between mixed or multi method research in the articles, therefore, the total of mixed methods and multi methods was used for the results. The main uncertain factor, whether a research used a mixed or multi method approach, comes from the survey designs. Surveys can be both designed a quantitative or qualitative research, the articles give no distinct insight on what type of research the survey is.

The sixteen selected articles gave, on most points, an extensive description of their research design. However, when analyzing the research designs with the 'research onion' model (Figure 2) of Saunders *et al.* (2019) large parts of the research designs of the selected articles did not match the 'research onion' (Saunders et al., 2019). To create a framework where the research designs were on equal levels, some reclassification of the first ranking was necessary.

The main issue was that seven articles (Broccardo & Rossi, 2020; Darkow, 2015; Kaiser *et al.*, 2015; Knight *et al.*, 2018; Lynch & Mors, 2019; Tidström & Rajala, 2016; Zhang *et al.,* 2021) used the case study concept as being the overarching research design where Saunders *et al.* (2019) describe the case study as being equal, part of the strategy, to for example a survey or archival research. Therefore, the research designs were further analyzed to correctly place all phases of the design on the right levels. It was decided upon to also include the research of Scott and Alwin (2013) who give an alternative vision on the longitudinal study, splitting this into retrospective and prospective constructs. The prospective longitudinal study is the longitudinal study where measurements take place during the happening of a process. For example, a person is interviewed twice during a project to measure if the person experiences a difference over time. The retrospective longitudinal study on the other hand considers the measurement after the process of interest has taken place. For example, a person is interviewed after a project, thus information relies on the recollection of the interviewee (Scott & Alwin, 2013). The seven articles that used the case study as being the overarching research design could be reclassified into being cross sectional or retrospective longitudinal time horizons. The use of the case study concept as being the overarching research design often considered the analyzes of data from a past process that had taken place. Considering Scott and Alwin (2013) these so called case study research designs could be reclassified under the retrospective longitudinal research as they conducted a research over a time period. Only the articles of Darkow (2015), Kornberger and Clegg (2011) and Micheli *et al.* (2011) were prospective longitudinal time horizons.

In Table 7 an overview of the research design and the methods used in the articles is presented. A difference with the 'research onion' of Saunders *et al.* (2019) is the inclusion of interviews and observations. In the sixteen selected articles, shown in Appendix A, interviews, observations, surveys and archival research are explicitly used as methods to collect data. The ‘research onion’ of Saunders *et al.* (2019) describes only survey and archival research as strategies. There is a clear difference in the interpretation to what level the research methods belong but this is beyond the scope of the essence of this research. Both the time horizon and method/strategy categories are structured on equal levels where the interviews, observations, surveys and archival research should be considered as data collection methods.

Table 7 Research designs

Time horizon:	**Methods/strategy:**				**Sources:**
	Interviews	Observations	Surveys	Archival research	
Cross sectional			X		(Miemczyk & Luzzini, 2019; Kopmann et al., 2017; Micheli & Mura, 2017; Elbanna, 2016; Healey et al., 2015; Serra & Kunc, 2015)
Prospective longitudinal	X		X		(Micheli et al., 2011)
	X	X		X	(Kornberger & Clegg, 2011)
	X	X	X		(Darkow, 2015)
Retrospective longitudinal	X	X		X	(Zhang et al., 2021; Knight et al., 2018)
	X				(Broccardo & Rossi, 2020)
			X		(Lynch & Mors, 2019)
	X			X	(Tidström & Rajala, 2016; Kaiser et al., 2015)
				X	(Nath & Ramanatha, 2016)

Table 7 shows that the articles followed in total nine different research designs spread over three time horizons. The articles that used the cross sectional research stand out as they all used the same research design by using surveys as their method for data collection. All of the articles that conducted a cross sectional study used surveys to test several hypothesis. This is different from the prospective- and retrospective longitudinal studies that followed a research question. For each article the researchers chose a set of methods that fit their specific research meaning that there is no clear trend in what research design was used except from the cross sectional research designs. Figure 5 pictures a flowchart offering an overview of the research designs in a flowchart.

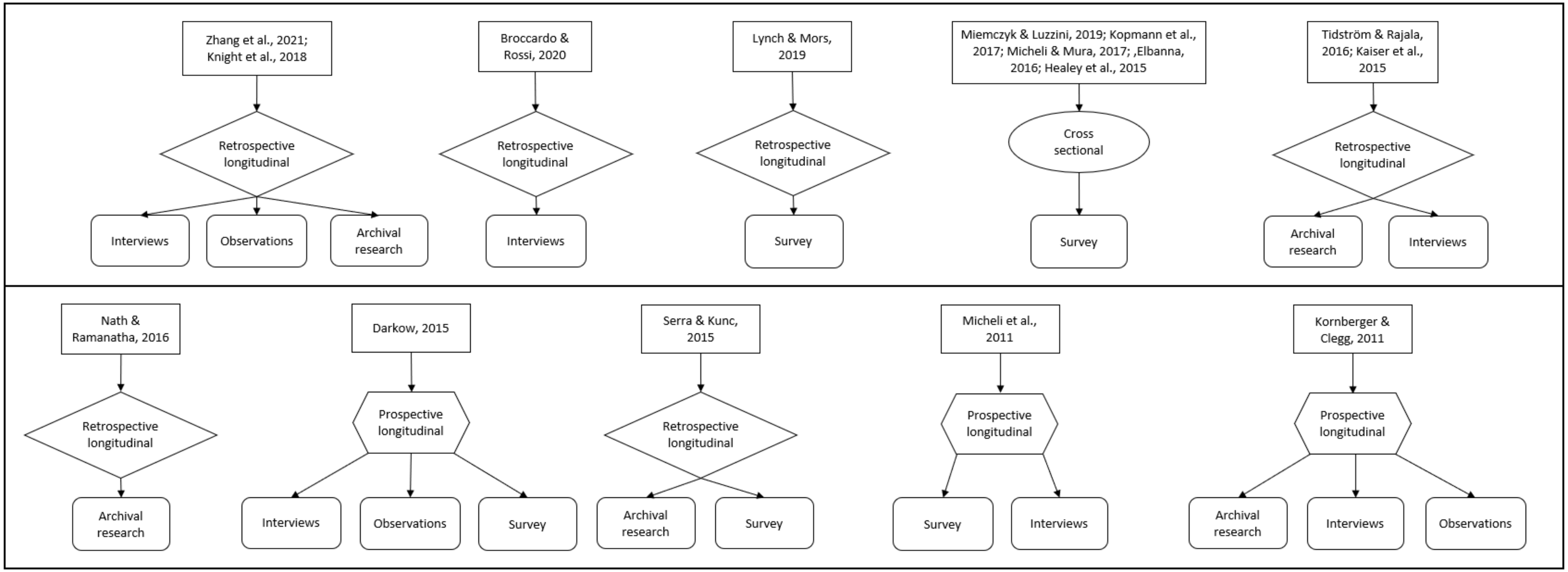


Figure 5 Flowchart of research designs

In Figure 6 the distribution of used research methods is shown. In total 26 different methods were used. The most common used method is the survey that was used in nine of the selected articles. Interviews were held in eight of the articles followed by the archival research with six times. The observation method was used the least, four articles reported to have used this method. The survey and interview method is straight forward to the extend what they entail. The difference between the articles lies mainly with the internal or external target group. The survey could be held with employees at the top or bottom of the organization or even with users. Furthermore, the survey is sometimes held within specified companies included in the research or targeting a complete market (Darkow, 2015; Elbanna, 2016; Healey *et al.*, 2015; Kopmann *et al.*, 2017; Lynch & Mors, 2019; Micheli & Mura, 2017; Micheli *et al.*, 2011; Miemczyk & Luzzini, 2019; Serra & Kunc, 2015). The interviews were all held internally and focused on the involved organization only, but differed in sample size and at what hierarchical level they were held (Broccardo & Rossi, 2020; Darkow, 2015; Kaiser *et al.*, 2015; Knight *et al.*, 2018; Kornberger & Clegg, 2011; Micheli *et al.*, 2011; Tidström & Rajala, 2016; Zhang *et al.*, 2021). The archival research concerns specifically the analysis of corporate related data, the analysis of interviews and surveys was not considered as a separate data analysis research method. The type of data differs among articles but considers the analysis of for example archival records, strategic planning documents or annual data (Kaiser *et al.*, 2015; Knight *et al*., 2018; Kornberger & Clegg, 2011; Nath & Ramanathan, 2016; Serra & Kunc, 2015; Tidström & Rajala, 2016; Zhang *et al.*, 2021). The observations consider, for example, the attending of meetings to analyze dynamics and behavior (Darkow, 2015; Knight et al., 2018; Kornberger & Clegg, 2011; Zhang et al., 2021).

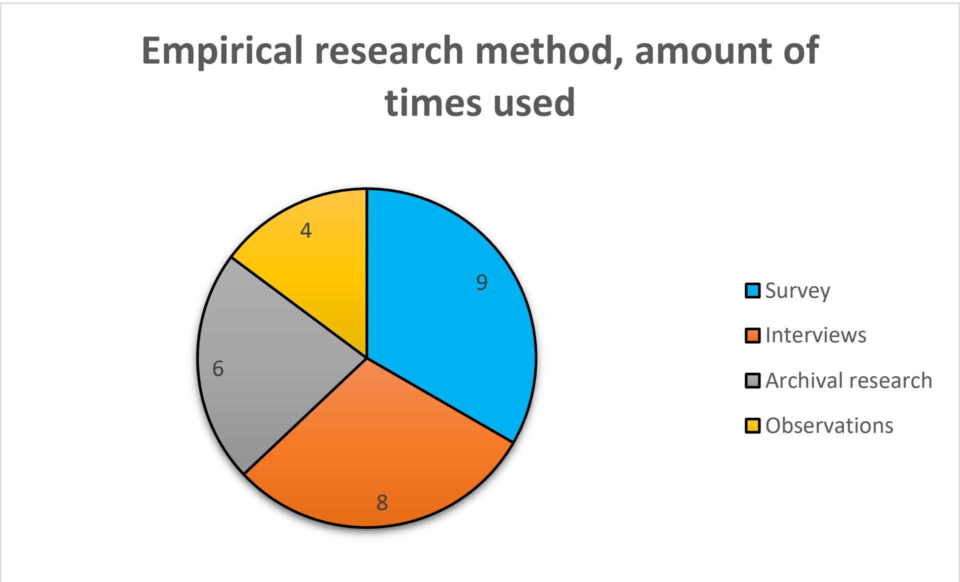


Figure 6 Research methods

For the archival research and observations method there was a limited amount of information available regarding the scale of the data. The articles did discuss the type of data that was researched and what observations took place, but there was no complete information on the amount of observations and data that was researched. For the survey and interview method this was different. The amount of survey responses was discussed in detail in every article. There was a big variance between the amount of survey responses, the smallest being 37 (Darkow, 2015), and the largest being 846 (Healey et al., 2015). The variance totaling to 809 while the average survey responses was 254 (Table 8). The large differences can, however, be explained as they depend on the type of data source. For example the research of Healey *et al.* (2015) concerns the distribution of their survey in a large database where the much smaller sample of Darkow (2015) focused only on one company. These differences can be seen across all articles meaning that the amount of survey responses seems to be reliant on the type of research that is being conducted rather than being related to validity or reliability considerations. The example given above show the difference between a full market (sector) research versus a company specific research.

Table 8 Survey responses

Reference:	**Survey responses:**
(Healey et al., 2015)	846
(Kopmann et al., 2017)	384
(Serra & Kunc, 2015)	331
(Miemczyk & Luzzini, 2019)	305
(Elbanna, 2016)	175
(Lynch & Mors, 2019)	96
(Micheli & Mura, 2017)	68
(Micheli et al., 2011)	44
(Darkow, 2015)	37
Average:	**254**

The amount of interviews was also given by the articles, except for one where an average was used (Kaiser *et al.*, 2015), as well as the duration of the interviews, except for two (Kaiser *et al.*, 2015; Knight *et al.*, 2018). In Table 9 the articles are presented that conducted an interview during the research, also the average duration of the interviews is pictured in Table 9. The difference between Darkow (2015), having conducted the most (25) interviews, and (Broccardo & Rossi, 2020), having conducted the least (4) interviews, is 21. In the table the large scale interviews were conducted with over 20 persons where the average is 14. The average duration of interviews differs as well. The difference between the shortest interviews (Tidström & Rajala, 2016), less than an hour, and the longest interviews (Broccardo

& Rossi, 2020), two hours shows a large variance. The average interview in the articles has a time duration of 80 minutes.

Table 9 Interview information

Reference:	Number of Interviewees:	Average interview duration (minutes):
(Darkow, 2015)	25	75
(Knight et al., 2018)	23	Unknown
(Kornberger & Clegg, 2011)	20	54
(Zhang et al., 2021)	13	90
(Kaiser et al., 2015)	11	Unknown
(Tidström & Rajala, 2016)	9	50
(Micheli et al., 2011)	5	90
(Broccardo & Rossi, 2020)	4	120
	Average interviews:	**Average interview duration:**
	14	**80**

To be able to learn from the research conducted in the past, articles provide valuable information in their sections of implications for future research and limitations. Not all of the implications and limitations are relevant for every future research into strategizing practices, therefore, only the generalizable implications and limitations regarding the research design were included and analyzed. In Table 10 all implications for future research and limitations are combined under 'implications' and the amount of times these implications were made is projected. There were made in total ten different generalizable implications regarding the research design across the sixteen selected articles. In total 27 implications were made by the articles, meaning less than half (6) of the articles made only one generalizable implication regarding the research design (Darkow, 2015; Healey *et al.*, 2015; Kornberger & Clegg, 2011; Lynch & Mors, 2019; Miemczyk & Luzzini, 2019; Serra & Kunc, 2015). The rest of the articles (10) made two to four generalizable implications regarding the research design (Broccardo & Rossi, 2020; Elbanna, 2016; Kaiser *et al.*, 2015; Knight *et al.*, 2018; Kopmann *et al.*, 2017; Micheli & Mura, 2017; Micheli *et al.*, 2011; Nath & Ramanathan, 2016; Tidström & Rajala, 2016; Zhang *et al.*, 2021).

Table 10 Implications

Implications:	Times made:
Include other countries	6
Increase sample size	6
Perform a longitudinal study	5
Research in other sectors	5
Extend research to further in the past	1
Include bottom to top	1
Include different organizational sizes	1
Perform a prospective longitudinal study	1
Perform a retrospective longitudinal study	1
Perform quantitative research	1

The most significant result is the implication for future research to perform a longitudinal research. In total seven articles advice to design a longitudinal research to increase the validity and reliability of the testing. Four of these articles do not specify the type of longitudinal research, prospective or retrospective (Darkow, 2015; Kopmann et al., 2017; Lynch & Mors, 2019; Micheli & Mura, 2017; Nath & Ramanathan, 2016). The other two articles do specify the use of prospective (Healey *et al.*, 2015) and retrospective (Elbanna, 2016) longitudinal research design. Healey *et al.* (2015) specifies the testing of a causal relationship by measuring in different points of time. Having a measurement at the start, during the process and after the process enables the research to gain a more valid insight into the causal relationship of a strategizing practice (Healey *et al.,* 2015).

The other three implications that were made most frequently: include other countries (six times) (Broccardo & Rossi, 2020; Elbanna, 2016; Micheli & Mura, 2017; Micheli *et al.*, 2011; Nath & Ramanathan, 2016; Serra & Kunc, 2015), increase sample size (six times) (Broccardo & Rossi, 2020; Kaiser *et al.*, 2015; Knight *et al.*, 2018; Micheli *et al.*, 2011; Miemczyk & Luzzini, 2019; Tidström & Rajala, 2016) and research in other sectors (five times) (Kaiser *et al.*, 2015; Knight *et al.*, 2018; Serra & Kunc, 2015; Tidström & Rajala, 2016; Zhang *et al.*, 2021). These three implications are all related to the expansion of the research. All of the articles claimed that their research validity was limited due to the fact that their research did not cover the full potential of the sample. Kaiser *et al.* (2015) claimed that their findings' validity was limited to construction companies only. Meaning that their findings were not completely relevant to other sectors. Broccardo and Rossi (2020) made implications for both the enlargement of the sample (including more companies) and expanding the research within more European companies to improve the research findings.

The remaining implications were made by individual articles only but are relevant to consider for future research regarding strategizing practices. Extending research to further in the past (Kornberger & Clegg, 2011) would entail the inclusion of more historic data to analyze trends over a longer period of time than the original prospective longitudinal study. Kopmann *et al.* (2017) implicated the inclusion of bottom to top, thus including the perspective from both regular employees and top management into the research. Micheli and Mura (2017) addressed the limitation that their research did not cover the different organizational sizes meaning that their findings could differ when having researched in a company with the size of a small or medium sized enterprise (SME). Zhang *et al.* (2021) addressed the validity problem that is inherent to qualitative research. The implication for future research is to expand the research by including quantitative regression-based measures or simulation methods.

When considering the reproducibility of the articles, a research design should be able to be copied by analyzing the article. Appendix B shows the operationalization of the measurements that were used in the articles to measure an effect of the strategizing practice. In this analysis only the articles of Darkow (2015) and Serra and Kunc (2015) are reproducible by reading the article. The research design and methods used are very different between the two articles. However, Darkow (2015) shares a detailed description of a research that does not make use of a data analyzes or regression model to measure the effectiveness. The research of Darkow (2015) is very detailed in the description of the process. The process description discusses the full process of implementing the strategizing practice at the company including the process employees working with the strategizing practice went through. The research of Darkow (2015) is an example of action research (Coughlan & Coghlan, 2002) and process research (Langley et al., 2013). Action research is a proactive and inclusive type of performing a scientific research (Coughlan & Coghlan, 2002). Like the research of Darkow (2015) action research includes the ones who experience the change. Process research is very close to the concept of action research. Also for process research there are large similarities to the research of Darkow (2015). Langley et al. (2013, p. 1) describes process research as: “process research, thus, focusses empirically on evolving phenomena, and it draws on theorizing that explicitly incorporates temporal progressions of activities as elements of explanation and understanding”. The elements of explanation and understanding during the process are the corner stones in the research of Darkow (2015). Moreover, the research of Serra and Kunc (2015) does share a detailed description of data analysis making use of regression modelling. The main difference between the research of Serra and Kunc (2015) and comparable research designs is the inclusion of the questionnaire that was used. The other articles do not provide such information making a reproduction hard.

The most significant findings are the many implications for using a longitudinal approach for future research of strategizing practices. Seven articles advised to use longitudinal research as it would give the research the most complete insight in the effects of a strategizing practice on the organizational performance. Three articles already used a longitudinal approach, meaning that half of the remaining selected articles advised a longitudinal approach for the future. The remaining seven articles did not show a clear (combined) trend in their implications. Other implications that were made several times considered the expansion of the research by either including other countries, increasing the sample or research other sectors as well. By expanding the research in such way it would positively affect the validity of the research according to the implications of the articles. Increasing the research validity would make it possible to generalize the research findings to a larger extend. For research methods, surveys, interviews and archival research appeared to be used the most in the selected articles. In eight out of the totaling sixteen selected articles a mixed or multi method approach was used, mixing several of the research methods. When only considering the longitudinal researches nine out of twelve researches used a mixed or multi method approach. Overall, there was a large variety in the research designs. The suggestions above can be used as building blocks but every research into the effectiveness of a strategizing practice could design its own research. However, taking into account a mixed or multi method over a longitudinal time horizon is suggested while using the research of Darkow (2015) as an example.

Public versus private organizations

The topic of differences between strategizing practices in public and private sector organizations was very merely discussed in the articles resulting from the search string. More specifically, the research of Kornberger and Clegg (2011) and Healey *et al.* (2015) were the only articles that discussed a limited amount of research specifically on the topic of strategy implementation in the public sector. Kornberger and Clegg (2011) made only scarce references to the difference with private sector organizations where Healey *et al.* (2015) used the difference in public and private organizations as a control variable. As the research of Kornberger and Clegg (2011) involved the municipality of Sydney, the interviews held for this research (sub-chapter ‘interview results’) could be used to analyze for any relevant findings, either deviations or similarities as there were two municipalities included in this research.

In the regression analyzes of Healey *et al.* (2015) the difference between private and public sector organizations is used as a control variable. The results do not show a significance in the test and do not seem to affect the hypothesis testing. Meaning that the difference in sector does not affect the strategizing practice that is tested. Furthermore, the findings regarding the sector are not further discussed in the results of the research implicating that the researchers did not see any relevance in these findings. The research of Kornberger and Clegg (2011, p. 137) refers to the research of Mintzberg (1987) and Pettigrew (1985) to "describe strategy in terms of political processes that do not unfold according to the neat logic of more traditional economic strategy research" (Kornberger & Clegg, 2011).

During this research two civil servants of different municipalities were interviewed. The interviewees addressed the influence of politics in their strategy implementation as well, more specifically, the influence on the strategic cycle. One interviewee claimed: "our strategic planning coincides with the term of elections and the term of the city council in charge, which is four years. However, some plans also exceed this term, these are mainly the internal goals. You will see a part of what the council wants in our strategic plans, this is our collaboration with them, and you will see a part of our internal goals". Furthermore, the other interviewee claimed that "that the city council designs the overall policy and the civil servants receive than the task to execute this policy and turn policy into strategy". The quotes above are limited to local political influence on the strategy of a municipality. However, the municipality is not limited to local politics only. According to one interviewee "since 2015 many social services were decentralized to the responsibility of municipalities". Meaning that national politics are influencing the strategies of municipalities directly as well.

Overall is the research from Kornberger and Clegg (2011) and the interviews only relating to municipalities. These organizations are intertwined with politics. The research does not address the public sector in a greater context. Therefore, additional research, outside of the search string, to articles addressing the difference between strategy implementation in public and private organizations was performed. Research regarding the differences between public and private organizations is not something new in literature as Smith Ring and Perry (1985) already address difference in strategic management within both organizations. Research literature highlights that the strategizing practices in public and private organizations are in need of different approaches (Alford & Greve, 2017; Campbell *et al.*, 2010; Smith Ring & Perry, 1985). In line with the interviews of this research and the statements from Kornberger and Clegg (2011), available literature addresses the effects of politics on the difference in strategic management between public and private organizations (Alford & Greve, 2017; Campbell *et al.*, 2010; Smith Ring & Perry, 1985; Ward & Mitchell, 2004). According to the research of Campbell *et al.* (2010) the private and public organizations cannot fit to a one size fits all approach when it comes down to IT governance. The systemic differences between the both organizations are too big to use a generalized approach although the IT challenges and issues in this case are similar. Alford and Greve (2017, p. 1) "argue for an alternative model based primarily on the public value framework as a means of incorporating and going beyond traditional strategy thinking". The main difference between strategic management in public and private organizations, according to Alford and Greve (2017), lies with the responsibility. Other than in private organizations, public organizations deal with a much larger group that is involved in the decision making. Politicians, stakeholders and citizens all take a role in the decision making process and, therefore, according to Alford and Greve (2017, p. 14) public organizations must "pay more attention to forming and shaping public value propositions".

In previous research the differences of influential factors on strategic management in public and private organizations became apparent. However, the research of Ward and Mitchell (2004) conducted an empirical research where the priorities of public versus private organizations were assessed on the basis of information resource management (IRM) critical success factors (CSF). Where Ward and Mitchell (2004) expected to find significant differences between public and private organizations the contrary resulted from the research. There were no significant differences found in the priorities based on CSF's meaning that the targets and priorities are very similar in both public and private organizations. These results are in line with the earlier discussed findings of Healey *et al.* (2015) where there was also no significant effect of sector type in their strategizing practice testing. The difference between both organizations seems to limit itself to the external influencers on the strategic management of the organization. As argued above the political influencers and the large group that is involved in the decision making process seems to be the two factors that requests for differences in the approach of strategizing practices in public versus private organizations.

Organizational sizes

Contrary to the limited amount of research available in the search string regarding differences in strategizing practices at public and private organizations, the effect of organizational size is discussed by seven of the articles (Broccardo & Rossi, 2020; Elbanna, 2016; Healey *et al.*, 2015; Kopmann *et al.*, 2017; Micheli & Mura, 2017; Micheli *et al.*, 2011; Nath & Ramanathan, 2016) in Appendix A. Where the previous sub-question could use a few insights from the interviews this was not the case with this sub-question. Although the interviews were held at different sized small and medium sized organizations no differences came forward. Mainly caused by the fact that the interviews were not designed to expose any differences in strategizing practices based on organizational size.

The research of the articles points to a number of different findings that touch upon several aspects of implementing a strategizing practice. The research of Micheli and Mura (2017) referenced to the research of Hogue and James (2000) that brings an insight in the effect of organizational size on the use of the Balanced Scorecard (BSC). A major difference between the large and small organizations is the difference in fast decision making. In line with research from Broccardo and Rossi (2020) also Hogue and James (2000) touch upon this point. Both articles suggest that the fast decision making is caused by the decision makers (owners) being close to the so called action and having less complex organizations. However, where the small organizations are able to manage their organization on fast pace large companies are in need of management systems to control the operations. Therefore, large organizations make more use of the BSC as a strategizing practice to manage the organization. Broccardo and Rossi (2020) found also benefits in the communication of the organizational strategy for the small organizations as it was more easy to communicate new strategy through the whole organization in comparison with large organizations.

When considering strategizing practices in a wider context, empirical research does not show a significant effect when testing firms size as a control variable in a regression analysis where the effect of a strategy practice on organizational performance is tested (Elbanna, 2016; Healey *et al.*, 2015; Kopmann *et al.*, 2017; Micheli & Mura, 2017; Nath & Ramanathan, 2016). In neither of the regression analysis models was a significant relationship shown and the results, except Micheli and Mura (2017), were not discussed from this point of view.

Considering the fact that none of the empirical tests showed a significant relationship of organizational size as a control variable on the strategizing practice and the organizational performance. Organizational size does not seem to influence the performance of strategizing practices. However, Hogue and James (2000) argue that large organizations are in more need of a management system then small organizations. Furthermore, both the researches of Broccardo and Rossi (2020) and Hogue and James (2000) argue that the pace of decision making power is higher at smaller organizations, due to having less complex organizations and decision makers are more close to action. The implementation of strategizing practices does not seem to be affected by the organizational size. Although it is good to consider large organizations tend to have a higher need for management systems and decision making power differs based on the organizational size.

Interview results

The interviews were held with nine participants of nine different organizations. Below both the results of the Gioia method will be discussed as well as the rating of research methods that was conducted at question nine. Both results will be discussed separately and give different perspectives of the practical insight when conducting a research into the effectiveness of a strategizing practice.

Longitudinal qualitative research

Three aggregate dimensions were identified (Figure 7). The build up from 1st order concepts to 2nd order concepts to eventually the aggregate dimensions will be discussed per aggregate dimension. The first conclusion from the research is 'preferred research method is qualitative longitudinal research'. This conclusion is based on three 2nd order concepts, namely, 'existing interest in effects although scientific proof is not the main consideration for using the tool'; 'main interest lies with qualitative research results', and; 'strategic cycles cover different time spans'. This 2nd order concept is indirectly represented in the aggregate dimension as it provides the research with an insight that it is highly important to consider the preferences of organizations. Although there is an interest in the effects organizations do not use a strategizing tool because it has scientifically proven its effectiveness. Replying to a question whether scientific proof would help the interviewee to convince his employees of the strength of a strategizing tool the reply was: "that would be too complex for my employees, the conviction that a tool works for us should come from me and not from science". Furthermore, the same person argued: "I would not change the way I work due to scientific proof, I just have to like the practicality of working with a tool". This statement is also made by other interviewees like: "scientific effects do not really interest me, I just like the way it works from a practical perspective". Although the interviewees use a strategizing tool for its practical use rather than scientific considerations, there is still an interest in the effects of using a strategizing tool. One private organization director claimed: "I would like to see the effect of a strategizing tool on employee ownership on a project or process".

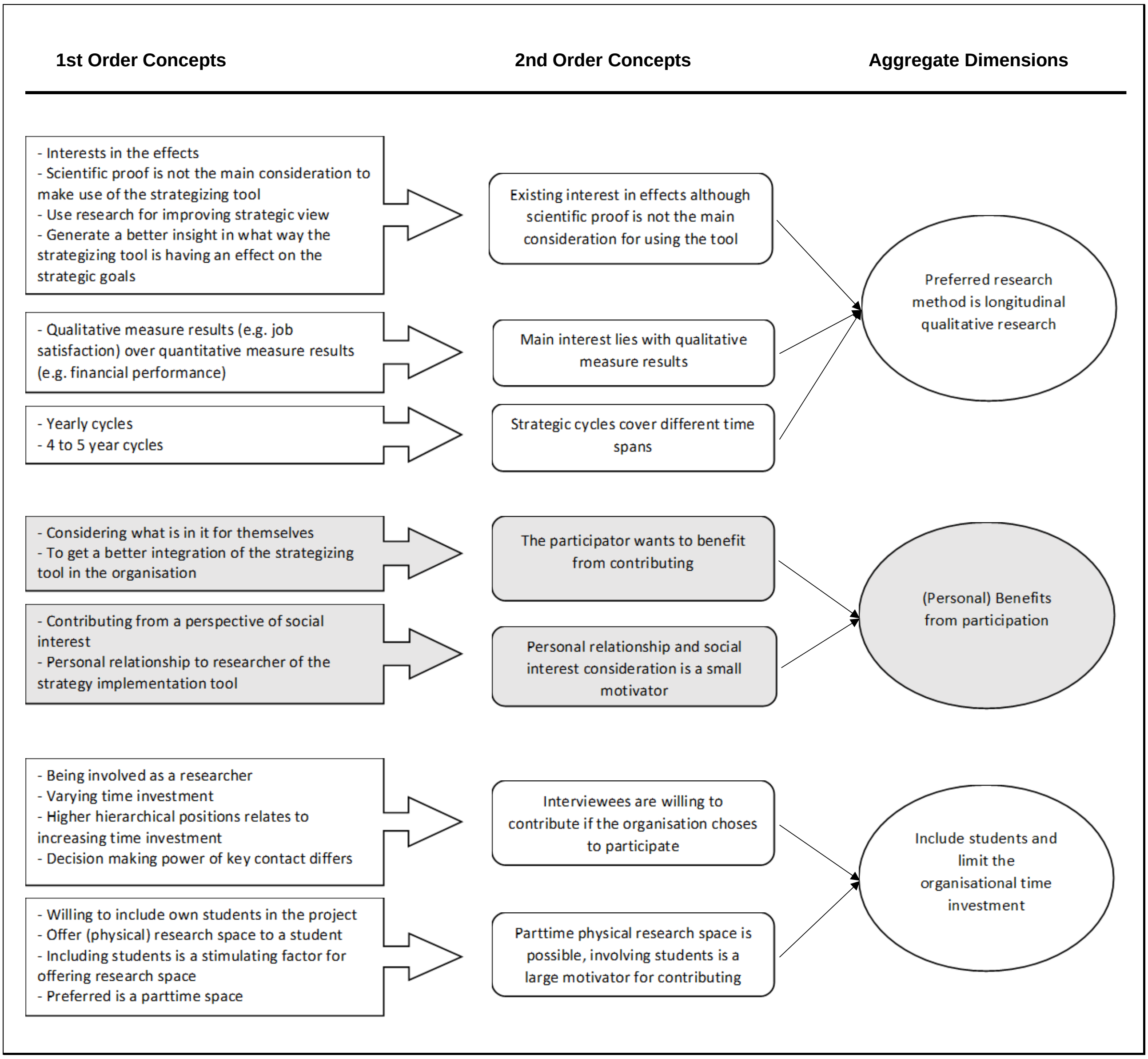


Figure 7 Gioia model

One of the cornerstones for the first aggregate dimension is the 2nd order concept that addresses the importance of qualitative measure results. The interviewees were asked in what kind of results they would be interested. Either, quantitative (hard) measurement result or qualitative (soft) measurement results. For quantitative results a research to the effectiveness would measure data regarding, for example, financial performance, sick leave or amount of students graduated on time. The qualitative results would focus more human resource side of business, for example, job satisfaction or if students feel more useful in society due to their study. One interviewee referred to a scientific research for his motivation to be interested in qualitative research results: “in research to new public management it came forward that aiming for quantitative results in public organizations does not motivate its employees”.

The aggregate dimension also contained a longitudinal advice. Six out of the eight interviews that were transcribed used a four to five year strategic cycle. Only two organizations used a yearly cycle from which one had an overarching four year cycle as well. The aim for designing a research for measuring effectiveness of a strategizing practice is to see a change in the organizational results, either in qualitative or quantitative results. As the interviewees have already clarified their preference for a qualitative result a research could, for example, measure the effect of using a strategizing practice on job satisfaction. Considering that most organizations use a multi-year strategic cycle the effect of the strategizing practice could be measured during the full strategic cycle to opt for finding a possible effect.

Considering the fact that interviewees do have an interest in the effect of a strategizing tool but would not use scientific proof to consider whether using a certain tool. Moreover, considering that interviewees are mainly interested in qualitative results and use multi-year strategic cycle. It is important to consider the wishes of the organizations in the research design. Combining the interest in qualitative results over a multi-year strategic cycle implicates that a combination of qualitative research methods over a longitudinal time horizon would be the best fit with the wishes of the organizations. The longitudinal time horizon is not specified on either being a prospective or retrospective longitudinal study. Whether it should be a prospective or retrospective longitudinal study is also very dependent on the organizations that join the research. A prospective longitudinal study would give a live insight on the effects of the strategizing tool during the strategic cycle where the retrospective longitudinal study exhausts people recollections (Scott & Alwin, 2013).

Benefits from participation

The second aggregate dimension considers the motivation for an organization to join as a research object. In the interview, interviewees were asked if their organization would be willing to contribute to a possible research into the effectiveness of a strategizing tool. Furthermore, they were handed the space to explain what their considerations for contributing were. This led to two 2nd order concepts, namely: ‘the participator wants to benefit from contributing’, and; ‘personal relationship and social interest consideration is a small motivator’.

The first 2nd order concept was addressed by every single organization. However, the type of benefiting differed across the different organizations. Where one interviewee stated: “participating should have an added value to the organization” and another stated: “considering the time investment versus what we get out of it”. These are relative unspecific demands from the interviewees side. There were also interviewees who opted for more specific benefits from participation such as: “I am personally interested in a research and especially taking part as a researcher”.

The second 2nd order concept concerned two types of motivators, the personal relationship with the researcher and the contribution to the social interest. The importance of the personal relationship was a rather surprising motivator as it was not considered as an answer when the semi-structured interview was designed. By most interviewees this motivator was mainly casually mentioned but not emphasized on. However, there was one interviewee who solely considered contributing due to the personal relationship with the researcher of the A3 approach. The interviewee stated: “I would not really be interested in the effects nor do I see value in researching our organization. However, if [name researcher] would call me I would join because he asks me”.

A second motivator is contributing to the social interest. Six out of eight interviewees work for public organizations which could arguably be a reason why contributing to the social interest is considered in their time investment. Two organizations argue the same by stating: “being a research institute ourselves we are always interested in contributing to scientific research. Also fulfilling to a social role and contributing to the social interest is something good for us to do”. Organizations that are not research institutes themselves consider the social interest as well: “every research that contributes to the greater social interest is something we are in favor of”.

Overall, there are a lot and also different motivations among interviewees to contribute to a research into the effectiveness of a strategizing practice. However, picturing a benefit for their contribution is highly important. There is always a consideration based on the value for their own organization or the added value to the social interest. A motivator that would might help to break the ice in the beginning would be the personal relationship of the organization with the researcher.

Including students and limiting time investment

The third aggregate dimension considers the involvement of students and limiting the organizational time investment. During the interview, interviewees were asked what their maximum estimated time investment for a research into the effectiveness of a strategizing tool would be. Related to this time investment interviewees were also asked if they would be open to offer physical space for a researcher to conduct the research within their organization. The statements from interviewees led to two 2nd order concepts: ‘interviewees are willing to contribute if the organization choses to participate’, and; ‘parttime physical research space is possible, involving students is a large motivator for contributing’.

During the interviews it became apparent that not all of the interviewees were in the position to decide upon participating to a research. Interviewees were asked if they were willing to contribute to a research on which upon one interviewee said: “this is hard to answer for me, as I am not the authorized person to decide that". Where another interviewee claimed that: "I have to run this by my board to receive approval". For a researcher it is important to consider whether the person of contact is in the position to make decisions upon participation. This differed a lot across the interviewees. Furthermore, there was a high difference in the expected maximum time investment. Differing from six hours limited to a period of time up to 250 hours for the full research. There was also another influential factor, namely, the position of the person that would be interviewed for the research. An interviewee stated regarding the time investment: "regular employees about half an hour, directors up to an hour and organizational staff more but not a specific maximum". More specifically, the employees higher in the organization were expected to give a higher time investment for the research than lower ranking employees.

For the second 2nd order concept we discussed with interviewees the possibility to offer research space to a researcher. Interviewees were not very welcoming to this idea in the first place but when a student was introduced as such a researcher interviewees were instantly willing to offer a space. One interviewee stated: "we are always open for students to conduct a research in our organization, this is something we always do from a social interest perspective". Where the organization were willing to welcome a student in their organization there was I side note: "I do not belief there is enough work for a student to conduct a fulltime research in only our organization". Furthermore, another interviewee saw potential: "it would also be a great opportunity for our own students to contribute to a research".

There is a lot of willingness among interviewees to invest time and effort in a possible research. However, the time investment is very different for every organization. By unburdening the organizations as much as possible this time investment can be limited. Also the inclusion of students in the research seems to create a lot of goodwill across the organizations as this would contribute to the social interest. Although organizations are willing to welcome a student, a fulltime space seems to ask too much from their effort. It is important to consider a minimal time investment while talking to a person who is in a decision making position.

Ranking research methods

During the ninth question of the interview, interviewees were asked to rank eight research methods from the one they would most like would like to contribute to onto the one they would most unlike want to contribute to. The results of the grading and the practical implications concluding from this research are discussed below.

The eight different research methods are shown in Table 11, based on the theory of Saunders *et al.* (2019) and its research onion we can state that the research methods are not on similar levels. The interviews were designed before the theory of Saunders *et al.* (2019) was considered and the research methods were based on the research designs used in the sixteen selected articles shown in Appendix A. Therefore, the interviewees were presented with less complete information compared to the available research at the point of processing the information. The main differences are with the longitudinal study, case study and research based on company data. The research of Scott and Alwin (2013) was also not yet considered for the deviation between prospective and retrospective longitudinal studies. During the interviews all interviewees were presented with an extensive explanation of the research methods to provide them with the context of what the research methods entailed. During the interviews the longitudinal study was explained in the context of a prospective longitudinal study. Furthermore, the case study was explained as following: “a research with for example a strategy implementation as the research object is studied by the use of one or multiple research methods (like interviews and surveys) after the strategy implementation has taken place, meaning looking back in time”. This type of research is best described as a retrospective longitudinal study. The research based on company data is equal to the archival research like mentioned in the research onion (Saunders *et al.*, 2019). Although the provided information in the interview is not completely flawless there was a good reason for including the longitudinal and case study (prospective and retrospective longitudinal study) concepts. The interviewees were provided with information that a longitudinal study would be conducted over several years and a case study would be looking back in time. The other methods only considered one single type of research and were not implicating several measurement points in time like a prospective longitudinal research.

As presented before in the Gioia table, interviewees were mainly interested in the qualitative measure results rather than the quantitative measure results. In line with the Gioia table results, during the ranking of the several research methods two type of qualitative measure results came out on top, being the interviews with employees and the main contact person. Interviewees saw value in evaluating a strategy implementation to have a point of reference from which improvements could be made. The input of employees was especially valued. The top 3 was complimented by the longitudinal approach. The longitudinal study was not the highest ranked research method in the list but was the research method that was put on top most times. Twice as much compared to the interviews with employees and main contact person. The longitudinal could arguably come across as a research method with a high time investment to interviewees, something that was confirmed by one interviewee who suggested: “I expect the longitudinal to have a large time investment”. The third interview type, interviews with stakeholders, was the last research method reaching a positive score. The case study that was equal to the retrospective longitudinal study had a very unstable ranking as it ranked on the second position twice but also ended up in the lower ranked positions an equal amount of times. The survey was ranked first only once by an interviewee who stated: "I rank the research methods to the least amount of time investment needed". This also clarifies why this person ranked the longitudinal study low. The research based on company data (archival research) and observation studies ranked lowest. It was apparent that the interviewees had the least feeling with these two research methods. Most question were also asked regarding further explanation on what these research methods entailed.

Table 11 Research method scoring

Research method:	Score:
Interviews with employees	10
Interviews with main contact person	8
Longitudinal study	6
Interviews with stakeholders	4
Case study	-2
Survey	-3
Research based on company data	-9
Observation study	-14

Overall, the interviewees ranked the research methods similarly to their research preference, being qualitative measurement results. There is also a lot of possibility for a prospective longitudinal study as four interviewees ranked this as their favorite research method in the list. Furthermore, we can see that there were no clear extreme scorers in the list meaning that there were many deviations of preference among the interviewees. The difference between the interviews with employees and the observation study is, however, rather large. Giving a good indication on what type of research a future research into the effectiveness of a strategizing practices should focus.

Discussion

This research aims to provide both a theoretical and practical insight into researching the effectiveness of a strategizing practice. By performing an SLR, eventually sixteen research designs from articles, published in top journals between 2010 and 2022, were analyzed in depth. A similar method was used by the respected research of Vuorinen et al. (2018). On top of the SLR the theoretical results were combined with insights from practice. To gather these insights nine employees (involved in the strategizing process) of nine different organizations that make use of a strategizing practice (A3 approach) were interviewed. This research aims to contribute to the future research designs of strategizing practices researching their effectiveness on organizational outcomes. The research resulted in seven contributions to future research designs into the effectiveness of strategizing practices on organizational outcomes. The seven contributions presented below are in line with the 'magical seven in science' as reported by e.g. Baddeley (1994) and Miller (1956).

Regarding the future of research designs there was one clear trend in the implications made by the selected articles. Five of the articles (Darkow, 2015; Kopmann *et al.*, 2017; Lynch & Mors, 2019; Micheli & Mura, 2017; Nath & Ramanathan, 2016) suggested to use a longitudinal approach for future research. Additionally, two articles (Elbanna, 2016; Healey et al., 2015) specifically suggested for a prospective or retrospective longitudinal approach in future research. Although five of the articles do not specify clearly whether a future research design should be prospective or retrospective longitudinal, it is clear that a future research design should measure an effect over a period of time. Due to the often incomplete or even incorrect research design information of the selected articles, when compared to the 'research onion' (Saunders et al., 2019), it is difficult to distinct exact implications between a prospective or retrospective longitudinal approach. Based on analysis of the discussions on implications (Darkow, 2015; Kopmann *et al.*, 2017; Lynch & Mors, 2019; Micheli & Mura, 2017; Nath & Ramanathan, 2016) for longitudinal future research designs and the specific suggestion by Healey et al. (2015), a prospective longitudinal research approach is suggested. As part of the research designs we also looked into the research methods that were used, however there was no clear trend in what research methods should be used for a future research. A research design should use the research methods that fits the goal of the research, while considering the demands of the research objects.

The suggestion for a prospective longitudinal research design is supported by results derived from the interviews conducted during this research. The interviews conducted with the employees of organizations that use the A3 approach resulted in an insight into the considerations that would contribute to future research. In line with the suggestions from the SLR the interviewees were also in favor of a prospective longitudinal approach. Furthermore, the interviewees preferred qualitative results measured by making use of interviews, in line with eight of the research designs of the selected articles (Broccardo & Rossi, 2020; Darkow, 2015; Kaiser *et al.*, 2015; Knight *et al.*, 2018; Kornberger & Clegg, 2011; Micheli *et al.*, 2011; Tidström & Rajala, 2016; Zhang *et al.*, 2021). The interviewees also pointed out the benefits that should result from participation, their limited availability and the motivating factor for organizations when students are involved considering the contribution to the social interest.

Authors of the selected articles are very clear on implications for future research designs regarding the consideration of expanding the research extent in several ways. The suggestions for expanding the extent of the research include three major topics: expanding the research to other countries, increasing the sample size and expanding the research to other sectors. The implications suggest for future research to carefully consider to what extent their research validity should reach. Researching one sector, construction for example (Kaiser et al., 2015), would result in limiting the strategizing practice validity to only this specific sector (Kaiser *et al.*, 2015; Knight *et al.*, 2018; Serra & Kunc, 2015; Tidström & Rajala, 2016; Zhang *et al*., 2021). A similar example and effect can be considered when extending a research to more countries or increasing a sample size (Broccardo & Rossi, 2020; Elbanna, 2016; Kaiser et al., 2015; Knight et al., 2018; Micheli & Mura, 2017; Micheli et al., 2011; Miemczyk & Luzzini, 2019; Nath & Ramanathan, 2016; Serra & Kunc, 2015; Tidström & Rajala, 2016).

Eight of the selected articles used a mixed or multi method approach, meaning the combination of multiple research methods. Especially when considering only longitudinal research, the significance of this finding becomes apparent.

Eight of the twelve longitudinal researches used a multi or mixed method approach (Darkow, 2015; Kaiser et al., 2015; Knight et al., 2018; Kornberger & Clegg, 2011; Micheli et al., 2011; Serra & Kunc, 2015; Tidström & Rajala, 2016; Zhang et al., 2021). Based on the implications made by the selected articles and the analysis of research designs, a multi or mixed method, while at the same time considering the extent of the research, is suggested.

Additional contributions of the SLR consider the influence of public versus private organizations and different organizational sizes onto a research into the effectiveness of a strategizing practice on organizational outcomes. Although for both public versus private organizations and different organizational sizes there was no significant effect when these components were measured as a control variable (Healey et al., 2015), there were some considerations when dealing with the different organizational aspects. Based on the interviews with municipalities and on Kornberger and Clegg (2011), public organizations tend to have a high political influence which affects both the strategic cycle as well as the strategic plans. Considering a future research, it is important to be aware of the term of council of the influencing political body, either being national or regional. Another aspect of public organizations is the number of people involved in decision making, this is much larger compared to a private organization (Alford & Greve, 2017). The difference in organizational size manifests itself in two ways. Firstly, large organizations tend to have more need for a strategizing practice, which implicates that a large organization would be the better target for a strategizing practice (Hogue & James, 2000). Secondly, small organizations have a faster pace of decision making, speeding up the process (Broccardo & Rossi, 2020; Hogue & James, 2000).

Based on a combination of the findings from the SLR and the interviews, future research should focus on a prospective longitudinal qualitative research. From a practice perspective, using 'interviews as the only research method' would find the most support. However, based on literature, a mixed or multi method approach, combining multiple research methods, is suggested as it will include multiple perspectives of data in the research. The research of Darkow (2015) offers a reproducible example of a prospective longitudinal research design with a mixed methods approach. More specifically, the research of Darkow (2015) follows an approach where action research (Coughlan & Coghlan, 2002) and process research (Langley et al., 2013) is used to establish an effect while implementing a strategizing practice.

Limitations

Although the selected articles have been analyzed using a similar method as used by Vuorinen et al. (2018), this SLR does have its limitations. Due to the limited amount of time and resources the SLR was only conducted in the database of Scopus, meaning not all possible sources were exhausted. Extending the research to other databases might have increased the sample of sixteen selected articles. A more broad data source could influence the results that were found in this SLR, as it would increase the sample and possibly the variety as well.

A more extensive literature review of research designs in its full perspective, like the 'research onion' of Saunders et al. (2019), would also be beneficial for the quality of the research design analysis. For this research the analysis of the research designs relied heavily on the input from the selected articles. However, creating a theoretical framework before the analysis was necessary. Since the selected articles did not all have a clear research design with the correct use of concept. This resulted in research designs being on unequal levels making the analysis more complicated. An extensive theoretical framework before the analysis resolved this limitation.

One of the major limitations in the analysis of the selected articles' research designs is the incomplete information regarding the implications for longitudinal future research and more general the distinction between a prospective and retrospective longitudinal approach. In the selected articles, the concept of case studies were often used where these would actually entail the retrospective longitudinal study of the effect of a strategizing practice. Not only did it complicate the analysis, it also made the interpretation for implications for future research incomplete. As the selected articles did not depict on either a prospective or retrospective longitudinal approach, it was up to this research to interpret the implication.

Due to the limited time and resources, the SLR and interviews were conducted consecutively. The ninth question of the interview concerned the rating of research methods.

The research methods were selected based on the input of the selected articles. Every research method mentioned in the selected articles was added to the list of research methods for the interviews. Conducting the SLR and, as discussed above, creating an extensive theoretical framework before the interviews would take place resulted in a more reliable and complete list of research methods for the rating. Although the interviews were held in a variety of sectors, which positively influences the validity of interview results, the interviews were only conducted with users of the strategizing practice 'A3 approach', which was a single person per organization. Extending the research to more organizations, using other strategizing practices and more interviewees per organization would increase the validity of the interview results. Including more strategizing practices opens the opportunity to better interpret the results for strategizing practices in general.

For future research we would suggest to first create a more extensive theoretical framework on research designs and research methods, before the analysis of selected articles and interviews take place. By doing so, an even more qualitative systematic approach is taken. Which would be able to deal with unequal levels of research design from the start. By extending the interviews to other strategizing practices as well, it would be possible to generalize research results. Furthermore, interviewing the authors of the selected articles would benefit a future research. This would give the opportunity for gaining an insight in the interpretation of the implications made by the authors of the selected articles.

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Appendices

Appendix A: Analysis of selected articles

Reference	Journal	Research topic	Theoretical relevance	Research method	(Future) Implications	Result
(Zhang et al., 2021)	Journal of Business Research	The paper explores the effects of TS on latecomer firms' catch-up progress.	Enriching the TS literature on distinctions between several concepts. Offering a dynamic perspective on the evolution of TS dimensions.	Exploratory case study approach on two firms. Data regarding catch-up history was collected. Main sources were interviews (13 in total with a duration of 1,5 hours), site observations (4) and archival records. Comparing performance among different TS types and analyzing the causes of differences. Impact of early TS on firms' later performance.	One major limitation concerns the inevitable validity problem inherent to qualitative research and the heterogeneities in the target firms' backgrounds. To extend our conclusions, more research is needed in other contexts. Subsequent studies should also employ different methodologies, such as regression-based quantitative approaches or simulation methods. Furthermore, our findings also raise other novel questions; for instance, when is the ideal time for firms to leapfrog? How can firms leverage external knowledge while avoiding excessive reliance?	A progressive TS is more likely to achieve market success compared to a more radical TS when a firm's internal capabilities are inadequate and external ecosystems are immature. The implementation of TS in earlier phases substantially influences later TS formation. A self-developing TS is more likely to enhance catch-up performance in the long run compared to a co-developing TS. Organizational transformation plays an

						essential supporting role in strategy implementation.
(Broccardo & Rossi, 2020)	International Journal of Entrepreneurship and Small Business	The study has a particular focus on the design, implementation and use of a strategy map as a tool to facilitate strategy implementation by measuring a wide range of strategic variables on a long time horizon and integrating economic and financial indicators with non-financial indicators through cause-and-effect links.	The article analysis management control (MC) systems in small and medium enterprises using a strategy map as a strategy implementation tool. The contribution lies in a better understanding of the behaviours of small-sized family-managed firms and to analyzing the impact of these two variables, size and family, on MC.	Empirical analysis, combined with theory, of multiple exploratory case study at four companies. Interviews with owners (4) of the companies. Interview duration 2 hours.	Some improvements are required with future research, such as enlarging the sample and including firms from other European countries. In addition, future research can link performance with the adoption of different kinds of MCSs, distinguishing firms with advanced and not advanced MC tools.	The critical success factors (fast decision process, customer oriented, quality-focused) of the four companies to reach success were identified. Diffusion of MCSs depends on the internal firm's characteristics, such as size, complexity, technology, organizational structure, strategy and internal culture. There are some theoretical and practical implications, however, there needs to be a larger sample.
(Lynch & Mors, 2019)	Long Range Planning	How do formal structural change affects senior managers' ability to maintain their	There is relatively little known about the effect of strategy implementation and the required	Egocentric network survey 18 months after the introduction of the reorganization (not ideal).	Future studies taking a longitudinal approach would be able to disentangle both how the maintenance of existing ties and the formation of	The characteristics of the network tie determine whether it is affected by formal structural change. The difference lies in ties that are highly embedded

		intraorganizational networks.	change on network ties.	Analysis existed out of 96 survey responses with a total sample of 884 internal peer-to-peer working relationships.	new ties are affected by change in formal organizational structures. Future studies could further disentangle the effects of organizational change on intraorganizational networks by examining the nature of ties both before and after the implementation of a formal organizational change.	in the social structure (more likely to be affected) and ties that are just relationally embedded (less likely to be affected).
(Miemczyk & Luzzini, 2019)	International Journal of Operations and Production Management	Companies are increasingly challenged by sustainability-related supply chain risks. Research has developed linking supply chain sustainability priorities, practices and triple bottom line performance; however, risk is rarely included in these models.	The paper shows a more nuanced view of the impact of supply chain practices on the strategy-performance link. It is one of the first papers to empirically test the role of risk practices in sustainable supply chain management and emphasize the	A survey for supply managers in four countries with 305 responses, with a focus on upstream supply chain strategies at the product category level.	Differences in category approaches were not part of our analysis and therefore future research could look at which categories allow the most opportunities in performance improvement with investment in sustainable practices and also a risk assessment approach. The research also focuses on the direct suppliers of a specific category, but risks	The environmental and social sustainability strategies lead to sustainable supply performance, through focuses practices in either area, but the effect on operational and cost performance is not significant. Social supply chain strategies positively impact environmental and cost performance when mediated by risk assessment practices.

		The purpose of this paper is to understand the link between sustainable supply chain strategies, practices and performance, and to test the importance of risk management practices in this relationship focusing on the product category level.	importance of alignment across the main dimensions of sustainability to achieve positive sustainable performance outcomes, but not necessarily cost and operational performance.		might stem from further upstream in the supply chain and therefore a risk assessment approach that can help detect these more distant risks might also provide interesting findings.	
(Knight et al., 2018)	Strategic Management Journal	The purpose of this study is to understand how strategists use visual information (specifically in PowerPoint slides), and its effects on the strategy process.	The precise role of visuals as a particular type of material employed by strategists has remained a black box, even though visuals have distinct physical properties that empower and enable actors to interact and convey meanings	Ethnographic case studies of two strategy engagements undertaken by a top-tier management consulting company. Observation of the nature of talk-visual dynamics within the strategy process.	We invite scholars to treat visuality as a more central research component, from both a methodological and a conceptual perspective. We focused on one strategy consultancy and two projects, we have limited ability to generalize our findings across the consulting industry. While collecting additional data from more firms and	PowerPoint slides can be designed to help tackle complex issues, for instance, when participants have divergent opinions or in politically sensitive situations. Those who craft and edit PowerPoint slides strongly influence the direction of the strategy. The skilful use of PowerPoint is therefore crucial in allowing

			in ways that differ from other modes of communication. It may help us gain a deeper understanding of the ongoing flow of the strategy process and explain the mechanisms behind both intended and unexpected shifts in direction that the strategy process can take, especially when actors employ visual materials.	Orienting the analysis included committing to prolonged real-time engagement with the site, using multiple sources of data and building a detailed event timeline. Data came from archival documents, ethnographic observations (907 total from which 832 emails) and interviews (23 interviewees each fortnight).	engagements might have strengthened the population validity of our findings. Scholars have already begun to explore cognitive and emotional responses to visual stimuli, including facial expressions and gestures. In both cases, a visual semiotic approach can enable scholars to go beyond instantiations of visuality to show how visuals influence the emergence of particular understandings and subsequent actions over time.	managers to shape the nature and speed of strategy engagements.
(Kopmann et al., 2017)	International Journal of Project Management	This study explores strategic control mechanisms at the project portfolio level and their influence on emergent and deliberate strategies.	Our research contributes to the discussion about the roles of strategy formulation and implementation and the effects of emerging	Hypothesis testing by collecting data via questionnaires. The response rate was 19,7% resulting in 189 decision maker responses and 195 coordinator responses (totalling	Future studies could investigate the performance effect of emerging strategy recognition in more depth to illuminate the mechanisms involved.	Both deliberate and emerging strategies positively influence project portfolio success, In turbulent environments, the relevance of deliberate strategy implementation decreases.

			elements under changing environmental conditions.	384 responses) from 200 firms. For hypotheses testing, we use the decision maker assessment of project portfolio success and environmental turbulence, and the coordinator assessment for the remaining variables.	Future research may also benefit from the inclusion of additional perspectives such as the views from top management to reveal the mechanism by which emerging strategy recognition affects strategy formulation. It would be interesting to include the bottom-up perspective of project managers or team members. future studies that take a multi-level, longitudinal, and micro-foundational perspective would provide deeper insights into how strategies actually emerge and could build on recent qualitative studies conducted from such a perspective.	Strategic control activities not only foster the implementation of intended strategies, but also disclose strategic opportunities by unveiling emerging patterns. Deliberate strategy implementation and emerging strategy recognition mediate the performance impact of strategic control. Findings suggest that strategic control at the project portfolio level has an important role to play in the purposeful management of emergent strategies.
(Micheli & Mura, 2017)	International Journal of Operations and Production	The purpose of this paper is to investigate the mediating role of comprehensive performance	This study clarifies the links between strategy and performance measurement, and it is the first to	Survey data of top managers of large European companies (250+ FTE or turnover 50+ million or assets 43+ million)	We focussed on large European companies: effectiveness of different strategic approaches and types of performance indicators may be different	This research shows that different strategies lead to the use of different types of performance indicators. Also, it finds that the utilisation of a

	Management	measurement systems (PMS) – i.e. measurement systems that comprise financial and non-financial indicators, and which also consist of indicators related to different aspects of an organization’s operations – in the relationship between strategy and company performance.	identify the mediating effect of comprehensive PMS between strategy and company performance.	were collected and analyzed by means of exploratory factor analyzes and hierarchical regressions in order to validate the proposed hypotheses. 800 random companies from Amadeus database were chosen and contacted. 68 usable questionnaires resulted from this database.	in alternative geographical contexts as well as in other organizational settings such as SMEs. Further research could examine not only balance and comprehensiveness of PMS, but also the structure and maturity of measurement systems as additional variables, since effects on company performance may depend on the degree of sophistication of a PMS, and how embedded such system is in an organization’s operations. .Longitudinal studies would be necessary to infer causality and to understand the evolution of PMS, especially in dynamic environments.	comprehensive PMS enables the implementation of both differentiation and cost-leadership strategies. Specifically, a comprehensive PMS positively mediates the effect of differentiation strategy on organizational and innovative performance, and of cost-leadership strategy on organizational performance.
(Tidström & Rajala, 2016)	Industrial Marketing Management	Existing research often considers coopetition as something	There is scant empirical research on coopetition in traditional	A single qualitative case study of a coopetitive relationship between	A possible route for future research would therefore be to involve informants from the other company	The findings show how praxis on the micro level influences, and is influenced by, practices on

		occurring between organizations on a meso level, that is, a relational or company level. This study explores coopetition strategy in the form of activities from a multilevel perspective. The focus is on coopetition praxis and practices and how these are interrelated on the micro, meso and macro levels.	manufacturing industries; a situation this study goes some way toward remedying. From a theoretical perspective, this study contributes both to coopetition research and research on strategy as practice. The use of the strategy-as-practice approach to coopetition research is a contribution in that it brings the doing of strategy to research on coopetition.	a large multinational company and its supplier. 9 interviews (50 minutes) were conducted and documents (total is unknown) were reviewed.	involved in the coopetitive relationship. Future research should continue investigating the doing of strategy on different levels and how activities occurring on different levels are related in time. Another avenue of future research would be to improve our knowledge of coopetition as practice from the perspective of a net or group of companies engaged in coopetition. Future studies on coopetition strategy could also focus on the artifacts of strategy, as has been done in recent studies on strategy as practice.	the meso and macro levels. Coopetition strategy is shaped over time through the relationship between praxis and practices on different levels.
(Nath & Ramanathan, 2016)	International Journal of Production Economics	The study investigates how various aspects of environmental management practices EMPs (operational, strategic, and	The first objective of this study is to examine how a firm can use individual constituents of EMP (OP, TP, and SP) to improve its	This study uses data from content analysis of annual reports, and corporate social responsibility reports available from corporate websites of 76 UK manufacturing	As argued that the use of content analysis can be useful to both qualitative and quantitative operations management researchers, therefore provides evidence and validates the choice of subjective, firm	The findings show that operational and tactical practices influence both the ETPs significantly but strategic practices influence only pollution prevention activities of firms.

	tactical) undertaken by firms influence their environmental technology portfolios ETPs (pollution control and pollution prevention). It also explores the role of environmental commitment of firms on the influence of EMPs on ETPs.	ETP (PC and PP) objectives. Previous research found a negative relationship between firm's PP activities and its profitability. This study extends such findings by exploring the difference in EMP–ETP linkage between firms with different levels of environmental commitment. Managerial contributions are to which EMPs should be adopted by managers making a distinguishing between PC and SP/PP activities. The study shows that	firms from eight different industrial sectors across two years using a time lag (2010–2012).	reported environmental measures. Future research can address this issue by choosing firms from other countries, obtain both secondary objective environmental performance measures (like from TRI database) and subjective content analysis data from corporate reports. Firms would like to portray them in the best possible light. To minimize this limitation, this study crosscheck the firm reported measures with the award granting bodies to increase the validity of the data. Future studies can include methodological variations, such as using longitudinal data on environmental initiatives to improve robustness of the results.	Environmental commitment positively moderates the influence of operational and tactical practices on pollution prevention but not on pollution control activities. There is no such moderating role on the influence of strategic practices on either pollution prevention or pollution control. The use of strategic practices tends to have stronger influence on long-term pollution prevention activities. Once firms improve their level of environmental commitment, their involvement in long-term pollution prevention activities improve.

			(environmental) achievements can be made when focusing on certain other strategic activities.			
(Elbanna, 2016) .	Tourism Managem ent	This article reports on the impact of managerial autonomy and strategic control on organizational politics and show how the latter influence effectiveness of strategic planning.	The study outlines particular directions that a rebalanced strategic management research agenda may take. Whereas organizational politics have received sustained interest in the management literature, its conceptual and empirical examination in the tourism industry has been meagre.	Analyzing survey data from 175 four- and five-star hotels out of the 312 total contacted hotels located in a less researched region, the Gulf Cooperation Council (GCC) countries. The research took place at hotels in two GCC countries UAE and Qatar.	A cross cultural study would resolve the issue of generalizing data from the original research which was based on only one region. Future research can examine the interrelationship between mechanisms of strategic control system and strategy content/processes. Such relationships need a retrospective longitudinal study, spanning several years and involving different data collection method. Recent reviews and empirical research of the field have suggested the	High levels of autonomy combined with low levels of control negate the effectiveness of strategic planning by increasing organizational tensions. Drawing on political and organizational perspectives, an interpretation of the results and policy implications are discussed. The study also delineates interesting research avenues for further research on organizational politics in the tourism industry.

					conceptualization of organizational politics be reconsidered to reflect their constructive aspects, offering yet another avenue for future research. future research needs to consider what kinds of control it addresses. This can help to understand how controls combine and complement each other and their applicability to different contexts. The debate between the independent or substitutional nature of autonomy and control, and the ideal balance of these views can be a subject of future research. Scholars, for example, can explore theories about the optimal balance between control and trust.	
(Darkow, 2015)	Technolog ical Forecastin	In this paper, an approach is presented that	Very little research has been conducted on the	The devised approach was applied within a multinational	Future research might explore the topic of strategy implementation	The devised foresight-based strategy development approach

	g and Social Change	describes how a foresight-based strategy development approach can be designed in order to leverage the potential of middle management. This approach is applied in strategy development to the supply chain management of a multinational manufacturing company.	involvement of the vast troops of middle management in strategy development. It may therefore be worth exploring the use of the integrative approach of corporate foresight in order to include middle management in strategy development. In addition, integrating foresight logic and the strategy research stream enhances the development of strategy theory—reunifying two research streams that went their separate ways	manufacturing company. In order to observe and analyze how the organization dealt with the approach, a qualitative, case-based approach was taken. The case focuses on Asia, and includes 37 middle managers plus their staff – totalling approximately 70 employees – from 13 countries. 25 interviews were held with a duration of 60 to 90 minutes. 37 survey results were collected.	based on integrative or foresight-based strategy development. Investigating the case company again and extending the case to a longitudinal study might be further promising research areas.	shows how corporate foresight can be used in a multinational company, applied to the functional strategy of supply chain management. The framework reveals the benefits of and key drivers for integrating middle management into strategy development. the approach can also be used to manage a broad range of internal stakeholders with managers from different hierarchical levels, cultural and educational backgrounds and strategic skills. This is an additional aspect when using foresight logic that has not been focused on in research in the field, but that is worth studying in greater detail. One of the main benefits of integrating management more intensively is to ensure that

			following Ansoff's seminal work in the 1970s.			all those involved can relate to the resulting strategy. This leads to a smoother transition to the implementation phase, which is crucial for the long-term impact of strategy on performance.
(Healey et al., 2015)	British Journal of Management	Strategy workshops – also known as strategy away-days, strategy retreats and strategic 'offsites' – are a common practice in organizations. In the UK, nearly four out of five organizations use workshops for strategizing.	Strategy workshops, also known as away days, strategy retreats and strategic 'off-sites', have become widespread in organizations. However, there is a shortage of theory and evidence concerning the outcomes of these events and the factors that contribute to their effectiveness.	We tested our hypotheses by means of a questionnaire survey distributed to a stratified random sample of 8000 (846 valid responses) members of the UK's Chartered Management Institute (CMI). For assessing the dependent variables concerning the focal workshop they used perceptual self-report measures. Measuring three outcomes: organizational, interpersonal and cognitive outcomes.	Researchers should consider objective measures of workshop outcomes that are practically meaningful. Operationalizing more precisely the constructs outlined might help uncover stronger relationships between design characteristics and outcomes. given our study's cross-sectional design, we were unable to draw valid inferences about causal relations among workshop characteristics and outcomes. Future work using longitudinal designs	Our study demonstrates the value of distinguishing the often overlooked interpersonal and cognitive outcomes of strategy workshops from their impact on the organization's strategic direction. it provides evidence that four basic workshop design characteristics are important differentially to the three types of outcomes identified. Although clear goals are important to all types of outcome, attaining organizational outcomes depends more on design characteristics concerning

					would permit more robust claims. One promising option would be to measure design features prior to and during the workshop and assess outcomes with objective measures at a later point in time.	routinization, whereas interpersonal outcomes rely on those concerning involvement and cognitive outcomes depend on those concerning cognitive effort.
(Kaiser et al., 2015)	International Journal of Project Management	We study the effects of fundamental strategic changes on the project selection and organizational structure. From our case analysis, we develop a substantive theory to explain how the criteria, used by a company to choose and evaluate its projects, influence the company's structure through the information requirements	Despite lagging acceptance in construction, there is now a growing body of research on construction strategy. Prior research primarily reveals a slow increase in awareness of strategic management methods over the past two decades. While the strategy formulation aspect has received some attention, strategy implementation in the construction	Qualitative research method in the form of a multi-case study approach relying grounded theory principles. Research was conducted at the three largest German construction companies. The two main data sources to analyze project portfolio management and organizational structures were semi-structured interviews (between 2-5 per	Since our study is limited to construction contractors, there is still a need for research in other industries (besides construction) to establish the findings' validity. For this purpose, it would be fruitful to conduct a quantitative study that relates the choice of strategic configurations with information requirements, and tests the co-occurrence of these requirements with corresponding organizational structures.	First, we offer a substantive theory that integrates strategy implementation, organizational information processing, and structural adaptation. Second, we introduce a new antecedent of successful PPM, namely structural alignment, thus introducing a new perspective on PPM beyond mere project selection techniques.

		created by such criteria.	industry is still poorly researched. This leaves a gap in current research, because strategy implementation is far more industry dependent than strategy formulation.	organization N=6-15, duration unknown) and annual reports (3513).		
(Serra & Kunc, 2015)	International Journal of Project Management	This paper intends to evaluate the use of Benefits Realisation Management among the project management communities of three countries: United Kingdom, United States and Brazil in order to understand its impact on project success rates and evaluate the impact of projects on the creation of	By increasing the effectiveness of project governance, Benefits Realisation Management can arguably reduce project failure rates from a strategic perspective. However, these practices are not widely employed yet, or employed as a subset of other project management	A survey study using questionnaires and data analysis using analytical survey tools (331 responses). In order to analyze experiences and to avoid loss of details or veracity, the data structure was defined as cross sectional, referring to one specific event occurred in no more than two years.	Some particular aspects can shed more light in our results. For example, a stratified analysis between different market sectors and types of projects can contribute to understanding the variance on the influence of each BRM practice and of each dimension of success on the final evaluation of project success. A better understanding of the aspects influencing the perceptions about the utilisation of each practice can help organizations and	Our results show BRM practices being positive predictors to project success on the creation of strategic value for the business. Therefore, these results suggest that BRM practices can be effective to support the successful execution of business strategies.

		organizational value.	processes, and there is scant evidence about its impact on project success.		even countries to clearly identify their maturity in BRM. Another aspect which may impact on comparisons of success rates between countries is the cultural and psychological biases which may influence on the individual perceptions of success. A deeper understanding of these differences can enable a more effective management of project portfolios, especially by organizations managing cross-borders projects, since similar evaluations of success can suggest different meanings.	
(Micheli et al., 2011)	International Journal of Operations and Production Management	The purpose of this paper is to explore the links between strategy implementation, performance measurement and strategic alignment	This research considers the case of a group of firms, which aimed to achieve strategy implementation and alignment without introducing	A mix of qualitative and quantitative approaches was used, and data were gathered in two different periods. In the first phase, preliminary interviews	Empirical investigations of performance measurement practices in highly diversified firms are still required. Exploration of another company case with similar	First, the introduction of IT systems and specific governance mechanisms alone enabled the implementation of strategy across the group only to a limited extent.

		within a highly diversified group of firms.	a comprehensive PMS. This paper provides empirical evidence of the potential limitations of such an approach, and illustrates the changes to strategy and performance measurement made by the company considered.	were followed by a survey across all the firms of the group and by semi-structured interviews in four companies. Semi-structured interviews were conducted four years later to explore changes in both strategy and performance measurement systems (PMSs). First phase 44 survey responses in total excluding interviews with executives. In the second phase only interviews with key informants were held. 5 Interviews lasting around 1,5 hours.	characteristics could lead to stronger results in terms of statistical relevance. Differences in the adoption of financial and non-financial indicators could be further studied to examine the impact of the use of specific indicators on the performance of subsidiaries. Cultural issues, at both organizational and national levels were not considered in this research.	Second, the lack of a comprehensive PMS appeared to have negative effects on both the formulation and implementation of strategy. Third, following a phase of substantial expansion, both strategy and measurement systems had to be changed to provide a greater sense of direction and to gather data on non-financial aspects of the business.
(Kornberger & Clegg, 2011)	Strategic Organization	This article focuses on the relation between strategy-as-practice and its power effects in the	The article adds to the strategy-as-practice literature by discussing how strategizing is	Three inputs of data were analyzed: documents (total unknown) as part of the strategy process,	Sydney 2030 seemed to repeat the ideals of the early 1970s without understanding their fate. A study of the past might be	It shows that strategizing is performative, constituting its subjects and shaping its objects.

	context of a strategy project (Sustainable Sydney 2030) undertaken by the City of Sydney.	accomplished in a city administration. Specifically, our contribution explores the nexus between strategy, knowledge and its power effects. The article theorizes the link between strategy-as-practice, discourse and power.	20 interviews (duration 45 minutes to two hours) with people of the core team involved in the strategy making and data collection by attending public events, meetings etc (total unknown). in which the strategy took place. To process the data and find any effects grounded theory was used. Also to analyze data sources like quotes manual coding was done.	a good starting point to ensure that the future envisaged now has an improved chance of changing for the better than the past envisioning of the future achieved. Looking at the past would bring to the fore long-standing conflicts of interest that have shaped the socio-political space of the city.	Strategizing has to be understood as aesthetic performance whose power resides in the simultaneous representation of facts (traditionally the domain of science) and values (the realm of politics). Strategy is a socio-political practice that aims at mobilizing people, marshalling political will and legitimizing decisions. The article concludes with reflections on five practical implications of the study.

Appendix B: Operationalization of the article

Reference	Measured entities
(Zhang et al., 2021)	Interviews (reviewing on performance) focussed on the formation, adoption and implementation processes while considering the results and impact of each company’s technology strategy.
(Broccardo & Rossi, 2020)	The effect of the management system was measured in three phases. Firstly, the causal links between resources and financial, customer, internal business process and learning and growth perspective. Secondly, the four perspectives were linked to strategic goals: turnover increase, brand growing and containment of costs. Thirdly, the human and organizational resources perspective was analyzed. The measurement relied on the interviews with the management of participating companies. Two variables were taken in consideration during the analysis: small size and family management.
(Lynch & Mors, 2019)	A statistical analysis was conducted to analyze the survey responses. Dependent variable: the professional network (relationship). independent variables: the structural embeddedness and relational embeddedness. Control variables: local, same industry, sponsor, recent tie and closeness.
(Miemczyk & Luzzini, 2019)	Measuring social and environmental performance of suppliers using a Likert-like scale. The performance is measured by having interviews with employees who rate the performance.
(Knight et al., 2018)	The analysis relies upon the interpretation and analyzing skills of the researcher. No effect between clear variables was measured but on the hand of documents, observations and interviews the researchers analyzed the effect of visual

	information on understanding strategy efforts in the organization.
(Kopmann et al., 2017)	Hypotheses testing. Dependent variables: project portfolio success. Second order constructs: strategic implementation, future preparedness, portfolio balance, average product success and synergy exploitation. Independent variables: Strategic control, environmental turbulence, deliberate strategy implementation and emerging strategy recognition. Control variables: firm size, portfolio budget size, portfolio innovativeness and portfolio management formalization.
(Micheli & Mura, 2017)	Firstly, respondents were asked to assess the focus of their company on competitive strategy in the last five years. The two main strategic priorities were used, cost-leadership strategy and differentiation strategy. Secondly, respondents had to rate the degree of importance attached by senior management for every KPI. A total of 18 KPI's was used distributed under four categories: innovation and learning, internal business process, customer and financial. For both KPI's and competitive strategy a Likert scale was used for measuring. As dependent variable company performance (organizational-, innovative- and operational performance) was used. Firm size was used as the control variable.
(Tidström & Rajala, 2016)	Measuring the effect of coopetition by performing interviews where employees share thoughts on the cooperative and competitive relationship between the two investigated companies on different levels (micro, meso and macro). Also documents were analyzed. Both data sets were analyzed with NVivo10.
(Nath & Ramanathan, 2016)	Using a team of researchers that coded, according to a coding scheme, company reports searching for keywords regarding environmental issues and evaluate the degree of involvement. Measurement was done by using a Likert scale. This process

	was done for the independent variable, environmental management practices and the dependent variable, environmental technology portfolio. Both coding efforts had one-month in between to avoid bias.
(Elbanna, 2016)	Four variables were measured using a Likert scale: managers' autonomy, strategic control, organizational politics and planning effectiveness. Three control variables were used: hotel size, hotel age and membership of a chain of hotels.
(Darkow, 2015)	The researcher participated in company events to conduct active interviews while the organization worked on the foresight-based strategy approach. The interviews were later coded. The coding was analyzed to conclude on the effect of the strategizing practice. The survey was used to define driving forces in the organization. Combining the survey and interview results two driving forces were defined: transport infrastructure and environmental regulation. After this the participants did not see the reference to strategy (interaction between driving forces and factors). By organizing a workshop participants saw the usefulness of the strategizing practice and could link strategizing to performance.
(Healey et al., 2015)	Measuring three types of outcomes, the effect of strategy workshops on organizational, interpersonal and cognitive outcomes. Effects were scored on a Likert scale, specific measured KPI's were: goal clarity, purpose, removal, serialization, involvement, participants and cognitive effort.
(Kaiser et al., 2015)	To analyze the alignment between project portfolio and strategic goals both semi-structured interviews and archival research was conducted. The combined set of documents was then analyzed by the researchers using a coding scheme to analyze the performance.

(Serra & Kunc, 2015)*	Measuring project success on a wide variety of project aspects using a Likert scale. Questions were based on previous research. (questionnaire)
(Micheli et al., 2011)	In the first phase a survey was distributed to measure the degree of adoption, awareness and implementation in the tools and techniques of management accounting and performance measurement. The survey consisted of multiple answer questions and Likert-type scales. There were nine independent variables (innovation most important) to identify key performance measurement areas. Semi-structured interviews were then held to investigate the issues that were concluded from the survey. In the second phase (after four years) a reflection was held during semi-structured interviews with executives.
(Kornberger & Clegg, 2011)	Grounded theory was used as the analytical approach. Two concepts emerged: how was the informing of strategy-as-practice and the performative aspects of strategizing. The research relies on subjective analysis of the researchers. No measurement was used nor an effect between clear variables was measured.

*Questionnaire provided in article

Appendix C: Questionnaire of the semi-structured interview

Vraag 1: Kun je iets vertellen over jouw rol binnen de organisatie (dagelijks werk en verantwoordelijkheden)?
Vraag 2: Kun je iets vertellen over de grootte, omvang en bijzonderheid van jouw organisatie?
Vraag 3: Hoe worden plannen in jouw organisatie ontwikkeld? Wie maken er allemaal plannen?
Vraag 4: Jullie gebruiken nu de A3 methodiek, hebben jullie ook ervaringen met andere strategie implementatie werkwijzen?
Vraag 5: Werken jullie met alle drie de pijlers van de A3 methodiek: A3 jaarplan, voortgangsgesprekken en de digitale ondersteuning?
Vraag 6: Heb je ook eerdere ervaringen met andere werkwijzen voor de implementatie van strategie?
Vraag 7: In hoeverre is jouw organisatie geïnteresseerd in de effectiviteit van een strategie implementatie model? Zo ja, in welke effecten zouden jullie inzicht willen hebben?
Vraag 8: Is jouw organisatie bereid mee te werken aan een onderzoek naar de effectiviteit? Zo ja, waarom wel, waarom niet?
Vraag 9: Welke vorm van onderzoek heeft jouw organisatie naar verwachting de voorkeur? Zou je deze kunnen indelen van meeste voorkeur to minste voorkeur (probeer hierbij een schatting te maken van bijvoorbeeld de tijd die het kost maar ook de kwaliteit die de resultaten kunnen opleveren)

- Enkelvoudige enquête
- Beschrijvend op basis van interviews
    - Type interview 1: Met initiatiefnemer van de strategie implementatie
    - Type interview 2: Meerdere werknemers binnen de organisatie
    - Type interview 3: Zakelijke relaties van de organisatie die de invloed van de strategie implementatie kunnen hebben ervaren
- Longitudinaal met metingen door bijvoorbeeld interviews, delen van data en uitzetten van enquêtes op minimaal twee momenten dit alles gedurende een meerjarig project (2-5 jaar)
- Observatie onderzoek
- Het delen van data voor het faciliteren van harde metingen door metingen van bijvoorbeeld percentage gerealiseerde doelstellingen, financiële resultaten of uitkomst indicatoren zoals klant waardering, uitval van studenten, geslaagden na gebruik van een strategie implementatie model

- Faciliteren van een case studie onderzoek (bestaande uit data, interviews en observaties)

Vraag 10: Wat is de maximale (tijds)investering die jouw organisatie zou willen doen in een dergelijk onderzoek? In hoeverre is de organisatie bereid om een onderzoeker van het strategie implementatie model te faciliteren, bijvoorbeeld in de vorm van een stagiair of afstuderende student daarvoor een onderzoek plaats aan te bieden?

Appendix D: Summary of interviews

Summary of interviews

1st Order (Concepts)	2nd Order (Themes)	Aggregate Dimensions
Institution director of University of Applied Sciences (UAS) Advisor process management municipality Teammmanager customer contact & (ITT) process management Teamleader study international business UAS Business manager private organisation Board secretary primary school institution Director IT consultant Director secretary hospital association	Role in organisation	Introduction
University of Applied Sciences Municipality Municipality University of Applied Sciences Executor of sheltered employment Primary school institution IT consultancy Hospitals association	Type of organisation	
4000 students & 400 employees 650 civil servants 200 civil servants 30000 students & 3000 employees 1100 employees 2700 students & 350 employees 27 employees 100 hospital members & 65 employees	Organisational size	
2020 2019 2018 2015 2020 2019 2014 1998	Started to work	

Management team with input from employees Local council and processed by strategic advisors Local council and processed by teams social and spatial policy Executive board with input from all stakeholders Business manager with management team Input parents children and teachers, discussed in school directors meeting processed by supervisory board Ownership lies with the employees, directors support and guide progress and whole implementation is guided externally by A3 Developed by employees and members, executed by board	Who makes (strategic) plans	How strategies are created
Bottom-up Politically Politically Initiative from top with input and advise from bottom Top-down Initiative from top with input and advise from stakeholders Initiative and ownership from bottom guidance by top Input from employees and members, executed by board	How are plans developed	
Yearly Mostly 4 years in line with term of office except from some specific projects Yearly, every 4 years in line with term of office except form some specific projects 5 and 6 years 4 years Yearly 4 and 5 years for overlapping strategy and annual plan for specific needs	Strategic cycle	
No model or theory but based on ideas Jacques van der Pels LIAS tool for policy budget Internally developed extensive annual plan INK model Levels of control by Simons High performance organisatoin De Waal SWOT Five star method Internally developed extensive annual plan	Use of other implementation tool	

No experience Using it since 2019 Using it since 2018 Yes we use it Using it since 2020 Using it since 2019 Using it since 2019 Yes we use it	Experience with A3	How strategies are created
None All three: annual plan, progress talks & A3 online All three: annual plan, progress talks & A3 online Annual plan A3 online All three: annual plan, progress talks & A3 online All three: annual plan, progress talks & A3 online Annual plan	What parts of A3 are used	
A3 Self developed annual plans not according to a model Black belt INK Self developed annual plans not according to a model Insights discovery Self developed annual plans not according to a model INK Balanced scorecard A3 INK Self developed annual plans not according to a model using SWOT No experience Self developed annual plans not according to a model	Previous experience with implementation tools	
Definitely Definitely Yes, to get a better strategic view Personal opinion is yes but scientific proof is not the main consideration to make use of the tool No, uses a tools because it is practically to work with but no scientific consideration behind it Yes, but tool is used because of its practical use Not really except for only one specific effect, tool is used because of its practical use No, uses a tools because it is practically to work with but no scientific consideration behind it	Interest in effectiveness of a strategy implementation model	Researching effectiveness
Interested in qualitative measures results Interested in qualitative measures results How can we visualise the effect of our strategy implementation Both quantitative and qualitative measure results Better connection between A3 and budgetting, effect of A3 on quantitative (financial) results Improving didactic skills Effect on ownership Effect of using a tool on members understandability of strategy	Interest in what effects	
Definitely Definitely Personally yes If the board agrees, definitely Definitely Definitely Maybe Yes	Willingness to contribute	

It contributes to society and our organisation could learn from a research (partially by students working on the research) To get a better integration of the tool in the organisation but considering what is in it for us If it would give us a better insight in what way the tool is effecting us and how to improve that, also considering what is in it for us Considering the consequences of contributing to the research, what is in it for us Always good to learn from each other but considering what is in it for us Considering what is in it for us Considering what is in it for us or as a personal favor Considering the investment as a personal favor but no real interest in the research, might change if the tool already found significant results that might benefit us	Considerations to contribute	
3-2.3-6 (rest not interesting) 1-2.1-2.2-5-4 2.2-6-2.1-1-4-5-3-2.3 3-2.1-2.2-2.3-6-4-5-1 2.3-5-2.1-2.2-6-4-3-1 3-6-2.3-2.2-2.1-1-5-4 1-2.1-2.2-4-5-6-3-2.3 2.2-6-2.3-1-5-2.1-4-3 3-2.1-2.2-2.3-1-4-5-6 2.3-1-2.1-2.2 (rest not interesting) 3-4-5-6	Research preference	Researching effectivenes
Contributing as a researcher so an intensive contribution Definitely available for investing a limited amount of time during a longer period 250 hours Definitely interested in contributing but not time specific 6 hours for a limited amount of weeks Teachers 30 minutes, directors one hour and for staff members no specific amount of time Between 10 and 20 hours a year, or a few times a year for a part of the day Very limited amount of time but a few meetings is possible	Time investment	
Definitely, could be a student from our school We are always open to facilitate research space for students We are always open for a student (preference for parttime) to conduct a research in our municipality We are always open to facilitate research space for students We are always open for a student to conduct a research here, but parttime regarding this specific research A parttime place is no problem with us We would facilitate a place for the days the research is being conducted at our office Not really at this point of time	Facilitating research spac	