A checklist for consulting digital change for financial management in SMEs; balancing efficiency and personalisation

How can non-digital consultants effectively facilitate the digital transformation of financial management practices in SMEs, to foster long-term sustainability and competitiveness?

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Small and Medium-sized Enterprises (SMEs) are facing increasing pressure to digitalise their financial management practices. However, many SMEs face significant challenges achieving this, due to lack of information, experience and available resources. While digital consultants can support these transformations, many consultancy firms rely on non-digital consultants who may lack specialised tools to guide this digital change. This research focuses on the role of non-digital consultants in facilitating digital transformation within SME financial management. The research identifies a gap in the existing literature, although change management frameworks exist, there is a lack of practical, structured tools tailored to the needs of non-digital consultants working with SMEs. To address this, the research provides a comprehensive checklist that can serve as a practical guide for consultants. Interviews with non-digital consultants, where personal checklists are developed and insights about the checklist proposed by the literature are collected, together with follow-up design discussions where additional information is collected from digital and non-digital consultants, supplement the checklist proposed by the literature with practical insights. This leads to a finalised version of the checklist. The practicality of the checklist is afterwards tested with a case study performed with a non-digital consultant. The checklist focuses on the critical stages of the consulting process, including stakeholder engagement, current practice assessment, and effective communication throughout the transformation journey. The findings of this research show that existing tools are often too theoretical and lack direct applicability. The developed checklist constructed in this research, offers a more applicable approach, helping consultants to better structure their advice, improve communication with SME clients, and monitor the progress effectively. In conclusion, this research provides a practical tool for non-digital consultants, enabling them to better support SMEs in their digital transformation efforts.

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During the preparation of this work, the author used no artificial intelligence tools.

1. INTRODUCTION

The upcoming trend of digitalisation is changing the way businesses act in the global market (Hassan et al., 2023). For a wide scope of businesses, the implementation of technology in one's business model is becoming more of a fundamental decision than an optional choice (Silva et al., 2025). This is however for many Small and Medium sized Enterprises (SMEs) a big grapple due to the lack of information, experience and resources available (Nordström & Järvelä, 2021). Due to the commonly seen flat hierarchy of a SME, digital implementation should be easier, but in practice a lot of problems occur (Silva et al., 2025). To help with the implementation of digital tools, SMEs bring in consultants. Digitalisation, which is defined by Warner and Wäger (2019) as, "the use of new digital technologies to enable major business improvements, such as enhancing customer experience, streamlining operations, or creating new business models" could enhance the productivity of a company by, for example, digitalising the development of a final report. Kotter and Schlesinger (1979) argue that resistance to change is however an ongoing problem within small firms due to the fear of losing their job. Various methods are used to limit this fear, but a right implementation of these methods is not common (Bridges & Mitchell, 1991).

Karadag (2015) stated in their research that financial management is the core of many systems within a SME. This means that problems occurring in financial management, lead to problems in other parts of the company as well. Partly because of this, financial management is the main cause of involuntary liquidation of a company (Jindrichovska, 2013). Jindrichovska (2013) also argues that problems in financial management could be avoided with enough knowledge about financial management. This can be achieved with education, training and the appointment of a financial management expert. Studies like the one conducted by Bradshaw et al. (2015) show that SMEs frequently seek advice at consultancy firms if their accountant can't solve the problem. Consultancy firms generally have more experience and knowledge available about digital change than a SME. For digital advise, consultancy firms are often forced to use non-digital consultants due to a shortage of digital consultants. These non-digital consultants commonly do not possess the digital knowledge needed for an efficient digital consultancy process. To tackle this problem, they need to be supported by individuals with more digital expertise, in this research called: IT-experts (Paloharju, 2023). For an efficient process however, all the preparation tasks need to be done.

Tools like a journey map or a Gantt Chart exist, that improve the efficiency and lower the difficulty of a consultation process (Rosenbaum et al., 2017; Wadhwa Kanika, 2024). Another frequently used tool that supports the difficult process of a consult, is a checklist. A checklist, which can be defined as a list of steps needed to perform a certain task, acts as a reliable framework, making sure that no critical step is missed and that processes are executed effectively every time (Scriven, 2000). The checklists that have already been developed however, often only cover a small portion of the consultancy process and don't go in-dept and vaguely describe certain steps (Catchpole & Russ, 2015). A checklist that covers digital change within financial management is even harder to find. A new checklist should be made that aligns with the competences of non-digital consultants in giving digital consults.

In the following sections, the problem statement, research question and the contributions is worked out. Due to the usage of abbreviations for digital topics, a list of abbreviations can be found in Appendix H.

1.2 Problem Statement

As stated in the introduction, SMEs have a hard time implementing digitalisation in their systems and strategies. A study by Kotter states that for some companies, uncertainty and lack of knowledge causes avoidance of change (Laig & Abocejo, 2021). Implementing technology in a system is however necessary to be able to compete with other SMEs, but also to not fall behind the big enterprises (Ingaldi & Klimecka-Tatar, 2022).

To help mitigate these problems, SMEs generally ask their accountants for help. These accountants typically do not have the knowledge available to effectively implement a digital change and therefore seek help at consultancy firms (Badria & Hasanah, 2024). Consultancy firms have a hard time keeping up with the trend of digitalisation. A common problem that consultancy firms face, is a shortage of digital consultants (Nissen, 2016). The use of consultants that are not specialised in digital tools and IT, which are called non-digital consultants for this research, is something that consultancy firms regularly opt for (Larsson et al., 2019).

Non-digital consultants face however problems in giving digital consultations due to the lack of knowledge about specific digital tools, systems and working methods. They do not have a specific expertise but have basic knowledge about a variety of subjects (Todorova, 2006). Specific advise concerning IT tools and systems is hardly given due to lack of knowledge about digital tools and systems (Bode et al., 2021).

The question remains if the knowledge of non-digital consultant, combined with the usage of a checklist, is sufficient enough to help with the digitalisation of financial management within SMEs. In practice, checklists covering this topic are hardly found or are only published internally. The checklists that do exist, like the one proposed by McFarlane et al. (2022) vaguely describe tasks and only states important points where consultants should look at instead of a clear step-by-step guideline that covers every step of the consultation process. Interviews in this research support the need for an extensive but specific checklist.

The literature present for digital financial management is mostly focussed on how SMEs implement digital financial management in their system and less focus on how consultants can help with this implementation. This leads to a research gap. Consultants that want to give advice based on literature need to look hard for appropriate literature or need to use literature that is not up to par.

1.3 Research question and objective

To solve the problems stated above, a research question is formulated. Below the question can be found including its objective.

Research question:

How can non-digital consultants effectively facilitate the digital transformation of financial management practices in SMEs to foster long-term sustainability and competitiveness?

The objective of this research question is to come up with a tool that acts as a guideline for a non-digital consultant in integrating digital changes into a SME. Since the checklist needs to be compact, this checklist will focus more on the preparation steps and humanistic sides of the process, instead of coding intensive steps. Another aim of this literature research is to fill in the gaps in the literature regarding digital implementation in SME, digital implementation in financial management and digital advisory practices for non-digital consultants.

The checklist is practically relevant in order to achieve the goal of being useful for non-digital consultants. The usage of interviews, follow-up design discussions and a case study supplements the findings of the literature and makes the checklist more practical.

1.4 Academic relevance

This thesis contributes to the research on the upcoming trend of digitalisation in financial management processes within SMEs, with the focus on the role of the consulting firm. The existing research on digitalisation practices is present but less practically aimed. This research is of value for further research on the topic of digital advisory practices for SMEs by focussing on SME specific problems from a standpoint of a non-digital consultant. Whereas most papers stop when a checklist based on literature has been reached, this research goes further and complements the literature findings by adding practical insights and findings that are collected from interviews and a case study.

From a theoretical standpoint, models like Kotter's eight-step process and Lewin's change Management Model are the core of a literature study based on change (Hussain et al., 2018; Laig & Abocejo, 2021). Papers that provide frameworks for digital implementation within a SME can be found, such as "the model for digital skills trainings for SMEs" written by Rajahonka et al. (2023) and "Digital transformation and business intelligence for a SME: systems thinking action research using PrOH modelling" by Panchal et al. (2024), but these frameworks lack data from practical examples. Where existing frameworks and checklists regularly focus on the beginning and the implementing process for a one-time-use experience, this thesis lays focus on the post implementation phase and a humanistic approach.

Since the main goal of this paper will be to provide a checklist that can be widely used by non-digital consultants in practice, this research is practically more relevant. Via this checklist, the efficiency of non-digital consultants could improve and advice could be more effectively given to the SME. This research has the potential to change future checklists and guidelines for advisory firms that lay focus on digital financial management. Existing checklists can be substituted or further enhanced with knowledge gained out of this research.

2. LITERATURE REVIEW

2.1 Digitalisation trends

Quite some research has been done on the topic of digitalisation. This leads to a wide range of definitions but the essence of digitalisation is the following: Digitalisation involves using various digital technologies, including data, and implementing them where possible to essentially adjust and improve business operations and processes (Chernov et al., 2025; Gray & Rumpe, 2015; Ueasangkomsate, 2025). The use of digital tools has led to a new revolution, industry 4.0, also called, the fourth industrial revolution (Ghobakhloo, 2020). According to Verhoef et al. (2021), there are three stages of digital change. Digitalisation is the middle step in this model, followed by digital transformation and preceded by digitisation. This shows that the implementation of digital processes is not a one-time event but more a constant process where an endpoint is far to be seen.

To compete with firms and diverse themselves from other firms, Knudsen et al. (2021) state that a company should focus on digitalisation, instead of the commonly implemented digitisation, which is the act of changing analogue information into digital information (Fähndrich, 2023). The strategic focus on digital tools, is changing visions and strategies within companies all over the world, leading to various drivers (Oks et al., 2016). Old stable methods are destroyed and new digitally focused methods are only temporary due to the fast-changing earth of the digital world (Plekhanov & Zurich, 2019).

Employees and clients are in some cases also a driver for digital change. Kortmann et al. (2022) state that employees work with the respective systems and see the company from a different perspective leading to a better understanding of problems. Clients also give a reason for digital change. An easier to use webpage, faster payment methods or an automated ordering system are features that are often desired by clients. A lack of these could result in dissatisfaction and a potential competitive disadvantage if competitors do have these features (Das & Bharadwaj, 2017; Lindblad & Karrbom Gustavsson, 2021).

Digitalisation is used by many companies in a variety of branches. The automatisation of processes is for example widely used in manufacturing firms but also in firms with a lot of standardized tasks where automatisation improves process efficiency (Heilala et al., 2020; Kroll et al., 2018). Companies often see automatisation as a simple digital implementation, but quickly realise that digital implementation often requires a lot of digital knowledge. Behind the automation lays for example coding and data preparation. APIs, which stand for Application Programming Interface and are used to allow software to communicate with each other, are of importance for automatisation processes. Without knowledge about these APIs, automatisation processes can hardly be implemented (Jacobson et al., 2012). If there is not enough knowledge available about APIs, software like RPA's and IPaaS could be used to automate the process, but these also require specific knowledge (Aguirre & Rodriguez, 2017; Kommera, 2015). Even tasks that seem simple at first, require sufficient digital knowledge. This is something that withholds a lot of companies from implementing digitalisation as a whole, since frequently, this knowledge is not present (Trifonov & Charaeva Editors, 2021).

Another common form of digitalisation within companies, is the use of data analytic tools. These tools require even more digital knowledge than automatisation tools since these tools are actively used instead of just implemented. Examples of data analytic systems and tools are SAS, ETL tools and Business Intelligence tools (Leech & Onwuegbuzie, 2007; Qaiser et al., 2023; Sallis Geirrgripsrud & Ragnhilddsilkoset, 2021).

Other trends in companies include among others, the usage of AI in decision making, digital collaboration, cloud computing, low-code / no-code development, API management, development of digital twins and blockchain technology (Barkalov et al., 2021; Bochulia, 2021; Bock & Frank, 2021; De, 2023; Faruque et al., 2024). Some of these trends require extensive digital knowledge i.e. blockchain, cloud computing and API management, whereas low-code / no-code and digital collaboration require almost no digital knowledge at all, making it more frequently applied (Marston et al., 2011).

2.2 Difficulties of digital implementation within SMEs

Small and Medium-sized Enterprises, also called SMEs, are frequently left out of past research. Although SMEs have less than 250 people working for them, they employ around half of the world's population and represent around 90% of businesses (Raihan, 2024). SMEs are not only important because of the job creation, they are also the drivers of innovation, entrepreneurship and economic growth (Hassan et al., 2023).

Despite the fact that SMEs are drivers of innovation, they regularly have a hard time implementing digital tools into their

respective systems. Larger firms have designated specialists that help with the implementation of digital tools into systems, but SMEs do not have those luxuries. SMEs often do not even have a system that is compatible with other systems (Amaral & Peças, 2021; Bargoni et al., 2024). Managers of SMEs often try themselves to implement digital change, but since they are not specialized, problems arise (Nordström & Järvelä, 2021). To still implement changes, these managers can go to consultancy firms.

A SME has enough reasons to tackle the challenges of digitalisation. These drivers vary per firm and industry but most papers state that digital implementation improves the overall productivity of firms (Corò & Volpe, 2019; Hassan et al., 2023; Kren & O'toole, 2024). The productivity spike can mostly be found through the automatisation of basic tasks and the development all-in-one business platform, otherwise known as a multi-platform integration strategy (Schreieck et al., 2024) A problem with the usage of automatisation systems, is the lack of data warehousing possibilities and digital knowledge. A SME often implements automatisation tools without looking at the storing and processing capabilities of the current systems, leading to data overflow (Matt et al., 2020; Omri et al., 2020).

Amaral & Peças (2021) also stated various hurdles SMEs may encounter while implementing digitalisation. The main and most common hurdles are lack of personal skills, lack of resources and the missing perspective of the economic benefit digitalisation could have. Change management principles are often implemented, but these do not cover every point of the issue. The implementation of digital tools into a SMEs business model can cause problems regarding employees. Resistance to the change commonly occurs. Smaller companies have, in comparison with larger companies, less formalised change management processes, tighter internal dynamics and less resources for a fluent change process, leading to more frequent resistance to change (Banham & Wiesner, 2006; Cetinkaya et al., 2019). A better bond among employees is also often seen, making a change within teams extra hard (Gutierrez-Gonzalez et al., 2025). One way to mitigate resistance to change and help employees with the management of the change, is to closely communicate and collaborate with employees throughout the project (Grama & Todericiu, 2016; Oreg, 2003). In this collaboration, the system is often explained and the fear of digital change is taken away (Kehinde Feranmi Awonuga et al., 2024; Kergroach, 2021).

2.3 Digital financial management within SMEs

The topic of financial management is broad and covers various aspects of the managerial branch with the focus on finance. It can be defined as the managing, controlling and planning of resources (Ehrhardt & Brigham, 2011; Higgins et al., 2023). Pandey (2017) argues that financial management has the responsibility to collect funds and control the use of funds. The book "fundamentals of financial management" describes the change financial management made over the years (Bhabatosh, 2015). It started with tasks like cash and fund management but over the years, financial management grew to have a vital role in a corporation and often acts as a backbone for other departments (Van Horne & Wachowicz, 2005).

Most SME have the desire to utilise digital tools to its full extend but due to budgetary constraints, this is often a complicated process (Bamidele Micheal Omowole et al., 2024). To meet this desire, SMEs first start with small fundamental changes within their business to ensure a good basis and increase efficiency (Omrani et al., 2024; Quinton et al., 2018). The change from individual platforms, like Excel, e-mail, project management platforms and other accounting software, to an all-in-one business system, where every tool is located at in one platform, is frequently one of the first steps that a SME takes (Bajdor & Lis, 2016; Sensini et al., 2021; Zott & Amit, 2009). This multi-platform integration strategy improves efficiency by limiting the amount of back-tracking, providing a more structured data flow and improving connectivity within departments (Duc et al., 2021). In combination with other cloud based systems, this change can increase efficiency and ensure an easier collaboration among employees (Jiang, 2024; Sean Flaherty et al., 2018). Another small but fundamental change us to use digital tools in combination with human work on places where only partly digitalisation is possible and efficient (Kallmünzer et al., 2018).

For every digital implementation, the connectivity with the existing legacy system should be kept in mind (Nkwinika & Akinola, 2023). A legacy system is an older and outdated system that often fulfils essential and core business needs and is frequently run on a complicated piece of coding (Irani et al., 2023; Khandekar, 2020). To align the new systems and tools with the legacy system, sufficient research needs to be done (Seacord et al., 2003). Digital tools that do not require a lot of alignment with the legacy systems, like digital invoicing and payroll systems, expense management platforms and expense trackers, are more preferred by SME than large and complicated systems (Ahmed et al., 2023; Andure et al., 2025; Kotios et al., 2022).

If a digital base is achieved, SMEs generally aim for tools that have a bigger impact on the company and cover less fundamental and more alone standing and specific problems (Trenkle, 2019). Collaboration with other systems is still of importance, the focus however now lays more on specific factors and business outcomes (McDonald, 2012). Monitoring platforms, dashboarding tools, business intelligence tools and forecasting tools are a popular next step for SMEs (Adetumi Adewumi et al., 2024; Alonge et al., 2024; Ren, 2022). These digital tools require some digital knowledge and resources, but are still rather achievable given the scale, budget and digital competencies of the SME (Faheem et al., 2021; Madhiarasan & Louzazni, 2022; Wasserbacher & Spindler, 2022). Pre-coded or easy to implement systems, are available for these digital tools making implementation easier (Guerard, 2013).

The next step requires a fundamental understanding of digital tools and a well-structured digital architecture within a SME. More code focussed tools like data analysis tools, automatisation tools, AI tools and data security tools are commonly implemented next (Toluwalase Vanessa Iyelolu et al., 2024). With more digitally complex systems and the usage of AI tools where data is often provided, the risk of data breaches is rising. Data security tools like IAM and ACS can be implemented to mitigate the risk of data breaches (Cahyono et al., 2025; Podzins & Romanovs, 2019; C. Singh et al., 2023).

The implementation of an expensive financial management tool can cause financial risk (Osatiuk et al., 2024) These risks can be discussed with the bank or the accountant, but these risks can also be forecasted and visualised with financial risk management tools (Hirth, 2011). These tools are not commonly implemented yet within SMEs due to their complexity, substitutes and high investment, but can be seen as the next step in the digitalisation of financial management for SMEs (Jonek-Kowalska, 2019; V. Singh et al., 2020).

2.4 Consultancy

A consultant is an individual who has some influence over a company or organization and provides solutions to improve performance or achieve specific goals (Bessant & Rush, 1995; Canato & Giangreco, 2011). Consultants provide ideas,

knowledge and insights for a SME, to further improve the business model of the SME on parts where the SME itself lacks knowledge (Block, 2023; Nordström & Järvelä, 2021). Past believes were that consultants are bound to a single role, but recent research, like the one done by Carstens & Shenepremte (2023), state that consultants shift from role to role and pick up different clients. In common consultancy projects, a standardised approach is followed which includes the following phases: contracting and first impressions, data collecting and diagnosis, feedback, implementation and extension or termination (Alosaimi et al., 2021). For consultation processes that are not focussed on implementing digital tools, non-digital consultants can mostly perform every phase by providing a fresh view of the process (Loh et al., 2019). For cases where digital implementation is desired, the implementation phase and a part of the data collection and diagnosis phase, can cause problems (Saley, 2023; Tavoletti et al., 2021).

Since the rise of digital implementations within a business' system, the demand for digital consultants rose quickly (Wennberg et al., 2010). The availability of digital consultants however did not meet this demand and let to the usage of consultants who are less specialised in digitalisation for projects that require digital knowledge. Collaboration between these non-digital consultants and individuals who have more experience and knowledge about digital tools, like data scientists, is a practice which is commonly implemented nowadays (Larsson & Teigland, 2016; Nikolova & Devinney, 2012; Paloharju, 2023). To help non-digital consultants, frameworks and checklists are made that explain certain steps in the digital consultancy process (Schlicht, 2020; Vaillant & Lafuente, 2024).

Lauer, (2020) and Stryker, (2011) argue that a checklist facilitates the work of consultants by providing a structured overview of these main points and steps. Often former checklists do however often not guide the non-digital consultant through the whole process and misses certain points. In hospitals, the use of checklist is highly advised to collect and sort data such that no step in the process will be missed (Conley et al., 2011; Gutsche & Weiss, 2016). These checklist are however not based on advise, but on facts proven after years of research. The world of consultancy is diverse and complicated and no such confirmation is present yet.

Since non-digital consultants lack broad knowledge about common digital systems and methods like ERP, ETL and API's, implementation of these systems and tools can cause difficulties (Varenyk & Piskova, 2024). A non-digital consultant can however help with steps that do not require an extensive amount of digital knowledge and focus more on human interactions (Nikolova & Devinney, 2012). A non-coding system like Novulo could be used by a non-digital consultant to visualise the desired tool or method, which someone with coding experience and more digital knowledge can develop and implement (Sedrakyan et al., 2025).

2.4.1 Desired digital knowledge

To facilitate the consultation process, it can be convenient for non-digital consultants to have basic knowledge about digital tools and systems (Advised & Babb, 2022). As Nordström & Järvelä, (2021) state, knowledge about AI, IoT, machine learning, MVP and cloud is a mere necessity for individuals to start with advise on digital tools. Krüger & Teuteberg, (2016), who developed key competencies that are needed for digital transformation, support this statement and add that knowledge about big data, business intelligence tools and software development like APIs is required knowledge. Since the non-digital consultant will mostly not implement the change all by themselves, specific and deep knowledge about these topics is not needed. An understanding of these topics is however desired to have an efficient pre-implementation phase (Piumelli, 2019; Sutton & Fenn, 2019).

Knowledge about systems, tools and methods is of importance to propose solutions and understand problems. To prepare the SME for the implementation or perform a company analysis based on data, practical skills are needed as well (Paloharju, 2023). For data preparation, skills like how to work with sprint zero, data pre-processing and SQL are a handful of skills that form a base for data preparation (Hampton et al., 2017; Qureshi et al., 2012). Other skills that might be convenient to at least have a basic expertise in are software architecture, working with AI and BI tools, scripting, cloud computing, ERP systems and DevOps (Koh et al., 2009; Riungu-Kalliosaari et al., 2016; Rueckert et al., 2019; Stopner & Willberg, 2024).

2.5 Checklist for the implementation of digital financial management for a SME based on the given literature.

With the information that has been gathered from the literature a checklist is developed. This checklist has the base of Hayes six step model and is supplemented by the management frameworks that can be found in Appendix F. The comparisons of these frameworks can be found in Appendix G. Since these frameworks focus on change management principles, the checklist is supplemented by digitalisation trends and consultancy working methods found in the literature.

Checklist for digital implementation of financial management based on literature:

1. Check if there is a need for change and what the drivers for change might be. Write these down and see if these factors and drivers for change could be further used and developed.
2. Asses the past and current digital and non-digital state of the company, the working methods, systems architecture, digital maturity, digital literacy and the adaptability of the IT legacy systems.
3. Start with the documentation of the digital change process for future use.
4. Determine the goal and vision of the change with the focus on what systems will be implemented and establish how that goal broadly will be achieved by looking at past cases. Be transparent about the change process and from this point on, engage the employees and communicate openly.
5. Determine with the help of data analytic tools, SWOT analysis, root analysis and KPI's what the problem is. Look for technical bottlenecks, data flows, data gaps and the business impact of the current situation.
6. Check if the currently used tools and systems are interoperable, are secure enough and if data needs to be cleaned.
7. Develop solutions that lay in line with the demands of the SME. Commonly used implementations are all-in-one business systems, digital cash management, API's, BI tools and cloud and AI systems.
8. Formally formulate and visualise what the change process will look like and provide this information to the manager, IT expert and the legal team
9. Plan the change and write down a plan where different scenarios are possible and where tasks of employees are clear.
10. Clearly communicate the change ahead of the actual implementation date with employees, start trainings and appoint individuals who are willing to help with different tasks.

11. Set up support and monitor systems that can be used during and after the change by employees, managers and future stakeholders.
12. Mitigate resistance to change by communicating changes, take away fear of losing a job, preparing employees for the change and provide education.
13. Implement the change together with the IT expert, monitor and openly communicate changes, progress and processes with employees by participation and celebration of small wins
14. Evaluate the change process together with stakeholders, monitor digital adoption and reinforce changes made by pointing out positive outcomes using data analytics to provide data.
15. Encourage continuous digital learning programs and close monitoring and plan follow up meetings to assess the impact the change has made and improve and implement further changes

3 METHODOLOGY

3.1 Research design

Empirical data is collected to see whether the checklist proposed by the literature review is usable for a non-digital consultant. Data is available and collected through various interviews with non-digital consultants and follow-up design discussions with digital and non-digital consultants. A case study, where a consultation process is followed focussing on the digital implementation in financial management within a SME, is also implemented. This method of research is of importance for this paper and leads to the final checklist which is based on a design-oriented approach. This research opts for interviews as the main form of data collection. Open ended interviews have the opportunity to give broad explanations, beyond what the researcher anticipates (Rogelberg, 2015). Moriarty, (2011) implies that, with the use of interviews, experiences are better understood. To explore subjects or experiences outside of the vision of the researcher, semi-structured interviews are conducted. A semi-structured interview lies between an unstructured interview and a structured interview in. This gives it the freedom of an unstructured interview, but the framework of a structured interview. This gives it enough freedom to tackle other topics. If an interviewees response angles off what the researcher wants to know, the interview protocol is used to guide the interview back to the intention of the interviewer (Kircher & Zipp, 2022). This protocol can be found in Appendix A. The reasoning behind the questions is explained in Appendix B.

The final checklist is a combination of three checklists that are proposed and developed within this paper. The three checklists are sorted per step and similarities are sought and sorted. These similarities form the core of the final checklist and are supplemented with feedback and points that are covered by the interviewees and the follow-up design discussions. The first checklist that is used for the development of the final checklist, is the checklist based on the literature. The second checklist is a combination of the checklists that are developed by the interviewees in the interview sessions, this checklist is called: the developed checklist by the interviewees (ID1 – ID 6). The third checklist is based on the working methods for digital change described in the interviews and follow-up design discussions, which is called: the checklist based on working methods (ID 1 - ID 6) (FDD 1- FDD5).

The goal of the checklist based on working methods, is to see what process the interviewees generally follow during a digital consultation, without hinting at the usage of a checklist or certain steps. Although the interviewees are also asked to develop their own checklist, which in theory, should include all the steps mentioned in the working methods, differences are expected. This can be explained by the difference between tacit knowledge which is experienced and story based and explicit knowledge which is more structured. People often recall things differently from how they structure and write these experiences down (Lesjak & Natek, 2021; Smith, 2001).

The goal of the developed checklist by the interviewees is to see which steps are deemed as important by the interviewees within a checklist and what information should be included. In the interviews, interviewees are asked to develop their own checklist that can be used during a digital consult. It is of importance that this question is asked before another checklist gets shown since this can otherwise lead to priming (Schacter & Buckner, 1998).

Lastly, questions are asked to collect interviewee's opinions and feelings regarding the checklist developed by the literature.

To gather valuable insights from the consultancy branch, this research makes use of interviews with non-digital consultants. As Palinkas et al. (2015) cover in their research, basic elements can already be found at six interviews. This suggest that a relatively small amount of interviews can be enough to be used in research. For this research six interviews are conducted with additional follow-up design discussions leading to a broader sample.

Some points of attention rise after the interviews are conducted. A total of 17 smaller interviews, which are called follow-up design discussions in this research, are conducted to cover these points of attention (Swain & King, 2022). Additional information is gathered without following the interview outline, which leads to a faster collection of information. This makes the follow-up design discussions a useful tool to question interviewees that do not have a lot of time. With these follow-up design discussions, other pieces of information are also collected, like the views of digital consultants for example (FDD 12 and FDD 13). To see if the checklist is useful in different situations, scenarios are given in which interviewees need to use the checklist and see the applicability (FDD 14 – FDD 17).

After all information is collected, the final checklist is developed based on a functional design method. A functional design method first focusses on developing a design, based on the presented literature, where the literature can be seen as a guide (Usher et al., 1998). This design is then tested and supplemented with practical data and information, which leads to a newly improved design that is based on a more functional and design oriented approach (Melas, 2006). The theory that is developed directly out of the collected data can be seen as a functionality of the grounded theory analysis (Glaser & Strauss, 1998; Li & Zhang, 2022). This theory is however not completely implemented in this research and is not classified as an analysis method. To make sure that the final checklist can be practically used, a case study is done. A case study, which involves the observations of an entity or process to gain valuable information, is an essential part of this research and validates the usability of the checklist (Baškarada, 2014). For this case study, a non-digital consultant uses the final checklist within a digital consultancy project. The outcomes of this case study is used to make it applicable for implementation and usage.

3.2 Data collection

For this research, the interviews are recorded after permission from the interviewee is given. After the interviews are conducted, the answers are divided into groups based on similarities. Any information shared that has no similarities with others, is put together in a separate group. Important information is written down during the interview.

Since the non-digital-consultants that are interviewed are all Dutch speaking individuals, the questions are asked in Dutch and thus need to be translated back to English again. Trouble with translation is not expected, but caution is needed while translating.

For the case study, important information is written down. The information from the case study is used to develop an explanation of the process which is found in section 4.5. Since it is hard to record a case study, it is important that everything that is of slight importance is written down.

3.3 Data analysis

For this research, content analysis is used. Content analysis is a method that searches for categories and looks at their significance. This can give a better overview of the positive and negative findings within a certain category (Graue, 2015). For this method to work, it is essential that all the interviews are transcribed.

If the interviews are transcribed, it is easier to look for similarities with a similarity analysis. Reoccurring events and methods are sorted and used for the development of the final checklist (Pickvance, 2001). It is important to find trends in the interviews (Hoaglin et al., 2011). This will make the final checklist more applicable for other consultants as well and not solely based on the methods of one individual. That is why for this research, half or more of the interviewees need to have the same method in order for it to be included in the checklist. A small supplement of a step can be done with fewer answers, but only if the supplement resembles a step mentioned by another interviewee.

When the final checklist is ready for testing, a case study is done to see where the checklist needs improvements and what processes positively stand out. For the case study, a non-digital consultant of Deloitte is asked to use the checklist and state their opinions about the checklist. The researcher works together with the non-digital consultant and analyses how the consulting process goes with this checklist.

4. RESULTS

The following section describes the results from the data which is collected from the interviews and the follow-up design discussions. The interviews are found in Appendix C and the follow-up design discussions are found in Appendix D. The outcomes of the similarity analysis and the content analysis are described in this section. For the sake of efficiency, each interviewee is given an abbreviation: ID, with a corresponding number behind. For the follow-up design discussions, the abbreviation: FDD, with the corresponding number is used.

4.1 Opinions about a checklist as a tool for digital consultancy

To see the usefulness of a checklist, interview questions are asked regarding the usability of a checklist in general. Out of these interview questions came the conclusion that a checklist is useful as a base, as long as it can be supplemented by own experiences along the way (ID 3 ID 4, ID 5, ID 6). Others stated that a checklist would be usable for new consultants or for hard cases (ID 1, ID 2, ID 3, ID 4, ID 5), stating that it could shine light in the darkness (ID 6). Since starting consultants are likely the ones that are going to make the most use of the checklist, the checklist needs to be broad, but not too broad that the checklist becomes hard to understand (ID 3, ID 4, ID 5). A balance must be found in order to effectively facilitate the digital transformation of financial management practices in SMEs. The opinions about the usage of a checklist in general are positive, but to ensure that the interviewees use the proposed checklist by the literature, steps need to be adjusted.

4.2 Opinions about the proposed checklist by the literature

With the help of the interviews, feedback is collected about the checklist that is proposed by the literature. With a content analysis, this feedback is grouped in positive and negative points.

4.2.1 Positive points

During the interview, there was one positive point which stood out and was covered by five of the six interviewees. It was stated that the checklist is good for starters and for complicated cases due to its broadness of topics (ID 2, ID 3, ID 4, ID 5, ID 6). For complicated cases a loss of overview is common, the checklist can help bring back the overview. For the final proposed checklist, it is kept in mind that the end users of the checklist would mostly be starters and that other non-digital consultants will mostly use it for complicated or new cases. Broad and clearly defined steps are therefore implemented. A positive point that is more focussed on certain steps, is the focus on stakeholder and employee engagement including communication and the inclusion of collaboration with the IT expert. The use of open communication methods was deemed as an important step in the consultation process since it will be beneficial for later steps, like the schooling and training phase. Another positive point which was brought up by the interviewees was the emphasis on documentation for the IT expert (ID 2, ID 4, ID 5). A well-documented process will ease the development of the final report and show earlier signs of failure (Matthias, 2019).

4.2.2 Negative points

An often mentioned point of criticism was the lack of information present about the implementation and the pre-implementation plan (ID 2, ID 3, ID 4, ID 5, ID 6). Since beginning consultants mostly use the checklist, it is of importance that every step is clear and well-structured to accomplish full understanding. Another negative point was the lack of specificity and the presence of vague sentences. Interviewees had trouble understanding particular steps of the checklist. They also found that some important information and steps were missing (ID 1, ID 2, ID 3, ID 4, ID 5, ID 6). The sole use of literature led to the problem that the checklist was too theoretical for some interviewees. These interviewees did not understand why some steps were structured in a certain way and found that important steps were missing. Step one was for example completely unnecessary (ID 3, ID 4, ID 5, ID 6). Whereas ID 1, ID 2, ID 4 and ID 6 stated that they liked the stakeholder engagement, ID 3 and ID 5 stated the opposite.

Another point of criticism is the lack of commonly used consultancy steps. (ID 2, ID 4, ID 5). The focus on change management processes was for some interviewees too much and overshadowed the real vision of this checklist: a checklist made to facilitate a better digital consultancy process for the non-digital consultant. Digitally focussed steps were missing and some steps look more like advise rather than actual steps that would be followed during a digital consult. It is structured more as point of attention rather than a guideline.

4.2.3 Conclusion

Out of the feedback given by the interviewees, it can be concluded that a checklist based on literature sounds good in theory, but in practice it lacks the practicality that is needed for a successful development and usability of a checklist. To be a good

solution and tool for digital consultancy cases, the proposed checklist needs to be changed in ways to meet the needs of the non-digital consultants. This is done with the data gathered from the interviews and the follow-up design discussions.

4.3 Overview of the steps for digital consultancy discussed in the interviews and follow-up design discussions

Due to the lack of resemblance of the checklist based on the literature to actual consultancy practices, it is important to see where the checklist can be improved. During the interviews and some of the follow-up design discussions, questions are asked about the working methods of the interviewees during a digital change. The aim of these questions is to gather information about the steps taken in a consultancy case without mentioning a checklist (Scriven, 2000). During the interviews, interviewees also develop their own checklist. From both of these methods, a checklist is developed, which can be found in Appendix E. In the next section, an overview of the steps can be found. Since the checklist based on working methods and the developed checklist by the interviewees do not include any specific information about software, unlike the literature, additional follow-up design discussions are held where interviewees needed to use the checklist in certain scenarios. The conclusion is that starters would miss a significant amount of practical information and that the checklist needs to be supplemented with more digital oriented steps. The digital consultant did state digital tools and methods.

4.3.1 Company assessment

Out of the interviews, a clear trend in the first step is seen. ID 2 until ID 6, all start with an initial assessment of the company before they have the first meeting with the manager of the SME. The information that is gathered would be confirmed at the first conversation which would improve the speed and efficiency of the process before the process has even started. After the first conversation, a company assessment is done by all the interviewees. This assessment generally includes information that was gathered from conversations and interviews, systems used, financial information and the industry. ID 2 and ID 5 also use past cases for their company assessment. This assessment step differs slightly from the step proposed by the literature, which only proposes a digital assessment. The follow-up design discussions added more digital tools that need to be assessed like data flows, data compatibility and system architecture.

4.3.2 First conversations

All interviewees state that they gather a large amount of information from the first conversations. ID 4, ID 5 and ID 6 stated that they first discuss budgets, goals, visions, problems and deadlines with the manager, whereas ID 2 and ID 3 state that they first have a conversation with the employees before a they have a discussion with the manager. In the developed checklist however, these steps are switched again.

4.3.3 Communication

After the first conversations, various methods of communication were covered. Every ID lays emphasis on timely communication. As Khandekar, (2020) states in their research, timely communication leads to a more effective process and brings down learning time. Not only communication with the manager about plans and solution was deemed important, communication with employees is also covered in almost all steps of the consultation planning. As covered in the literature, it mitigates the resistance to change and leads to potential more engagement from employees. The communication between the non-digital consultant and the IT expert was stated as an important step in the process as well and should not be overlooked.

4.3.4 Problem and solution

After an assessment is conducted, all interviewees develop a problem statement. The problem statement is a helpful tool that consultants use to present the problem to the manager and to find solutions more easily since problems and causes are stated (Austin, 1997). Where ID 4 develops a problem statement during the first conversation with the manager and employees, ID 1, ID 2, ID 5 and ID 6 lay more in line with each other and develop it after the first conversations and data collection phase, to give a broader but more specific problem statement. The problems, but also the possible causes for these problems, the findings of the initial assessment and the effect the problems have on the SME, are all included in the problem statement (FDD 10). The IT-experts argue that technical bottlenecks, problems with the legacy system, lack of API's and business impact are some technical points that should be added as well (FDD 12, FDD 13). In the developed checklist, half of the interviewees communicate the problem statement with the manager before a solution is proposed. When the problem statement is developed, all interviewees develop a solution to the problems stated in the problem statement. ID 1, ID 4, ID 5 and ID 6 all develop more than one solution. ID 2 works together with the SME and IT expert on the solutions while ID 3, ID 4, ID 5 and ID 6 all work without the SME on their solutions. For the solutions, most interviewees (ID 3, ID 4, ID 5, ID 6) look at the data that was collected, failures in systems and past cases. If a new system is needed, they perform a broad analysis of these systems and compare them based on budget functionalities and fit. The solutions always get presented to the manager first and after the solution is accepted, the stakeholders and employees get informed.

4.3.5 Implementation

After the solution(s) are accepted by the manager and employees, interviewees generally develop an implementation plan together with the IT expert. The implementation plan typically includes among others, the planning, budget, the solution, needed systems and employees, working methods, ISO standards, security risks, and needs for training. Communication of the plan to employees and stakeholders was deemed important by every interviewee. Before the implementation takes place, ID 3, ID 4, ID 5 and ID 6 make sure that everything is ready for the implementation. This can include data preparation, data storage, implementation of legacy systems and the preparation of the training for employees. During the implementation, ID 1, ID 2, ID 4, ID 5 and ID 6, all take an active approach and support the employees and managers where possible in the implementation process together with the IT expert.

4.3.6 Monitoring and documentation

Within the whole consultation process, documentation and monitoring is deemed as an essential part of the process by the interviewees. Some steps, like the problem statement, implementation plan and the final report are naturally documented. ID 3, ID 4, ID 5 and ID 6 however also brought up that other steps in the consultation process are documented as well and is seen as important. Hackman et al. (1987) argues as well that documentation is of great importance for a successful change process. Documentation is especially important since this provides all the data and information that the IT expert needs. Focus on the documentation of digital tools, systems and working methods is important for an IT expert (FDD 12, FDD 13).

Every interviewee stated that they apply some sort of monitoring within the process. Some earlier and more frequent than others but monitoring gets at least implemented by everyone in the final step. Monitoring is used to see where problems arise, what could be improved, what is not used and to see if the consult was a success. A successful monitoring of the process could catch errors, show ways of improvements and substantiate the decisions made by the consultant.

The outcomes of the consultation process will lastly be documented in the final report, where interviewees state that they show the benefits of the change, a summary of the process itself, the outcomes and give a final advise to the SME (FDD 6, FDD 8, FDD 9).

4.4 Case study

With the three checklists that are developed in this paper and other useful information, which was collected from the follow-up design discussions the checklist before feedback is developed. Final feedback is asked during the follow-up design discussions (FDD 6 - FDD 11 and FDD 14 - FDD 17). This feedback let to the addition of return on investment (ROI), the addition of a broader explanation of the implementation plan and final report and the inclusion of more digitally oriented steps. The checklist before feedback gets supplemented with these additions which forms the checklist before the case study. This checklist is used by a non-digital consultant in a case to see the applicability. In this case, a SME needs advise on how to implement digital financial management tools in a SMEs business strategy. The non-digital consultant follows the checklist step-by-step.

4.4.1 Case overview

For this case, the manager of the SME did not have a certain problem they wanted to be solved, they just wanted advise on financial management tools and how to implement them into their strategy. Due to confidentiality, not the entire process can be described in detail, but an overview can be given.

Prior to the first meeting, initial research has been done. This research was confirmed by the manager in the first conversation. The conversations with the employees where positive, the only problem was that one employee, who would have been helpful, was out of office that day. To end the day, the consultant stayed at the office and started with the assessment of the SME.

Since the problem statement for this case was partly presented by the manager, it needed to be formally written down and additional information was added to better lay in line with the needs of the IT expert. After the problem statement was well defined, it was communicated to the manager and feedback was asked to see if any points were missing.

The next step was the development of possible solutions. This was the hardest part of the consultancy case since an analysis of financial management software needed to be done. The consultant did the assessment together with the IT expert. Based on the given functions, the budget the SME has and the vision that the SME has, a choice was made. The budget for this project was lower than normal so the options were limited.

After this step, the implementation plan was developed together with the IT specialist, following the script of the checklist. After the plan was developed, it was communicated to the employees and manager and accordance was asked.

Since the employees of the company were on the older side, training and education for the systems was desired. The system that was chosen had a good to follow instruction which was enough for this implementation. Before the implementation, the consultant collaborated with the employees on the preparation of the other systems and data. Due to budget constraints, no pilot phase was implemented, and the implementation could start on the given deadline.

During this implementation, the consultant actively took the communication lead while the IT expert supported.

When the system was in use and the first two days were a success, the consultant started on the final report and the manager could start with the implementation of the monitoring plan that was developed by the consultant. After two weeks, the consultant had their final report and advise ready and presented it to the manager. The final report included everything from the checklist and the final advise was positively received.

Afterwards, feedback from the manager was asked about the consultancy practice. Although they had not a lot of experience with consultancy practices, they stated that they thought that it was a success. The process went fluently, and that the consultant acted with confidence. When asked about the use of a checklist, the manager stated that they did not experience any usage of the checklist or other helpful tools at all showing a natural approach.

4.4.2 Positive experience of the checklist

The non-digital consultant that used the checklist stated that the checklist was easy to follow and that there are no big gaps between the steps. The consultant likes how much emphasis there is on the human interactions and the communication. The option to implement a pilot phase was, although not implemented, a step that the consultant normally does not include but likes that it was included in the checklist. The clearly defined steps with the focus on digital tools and methods was also perceived as a helpful tool. The IT expert stated that the collaboration, which started from the development of the implementation plan, was a good starting point and that the non-digital consultant prepared everything up to par for them to start.

4.4.3 Negative experience of the checklist

Although the checklist is deemed as a success, there are some small points of attention. The manager of this SME was really focused on the money and desired the financial information like ROI and the expected costs in the initial conversation. The checklist states this information only at step eight. The consultant had no proposition however what could solve this problem since ROI could only be calculated after a solution has been proposed. The use of past cases is however useful to show numbers of past projects that are similar to give an example of what could happen. To solve this problem, which might happen more often, the use of past cases is implemented at step two.

Since a limited budget was available and a quick process was desired, not all steps were fully followed. This led to some additional thinking by the non-digital consultant, but this was however not seen as a complication.

4.5 Final checklist

The checklist found below is the version after the case study is conducted and is the final version of the checklist that will help non-digital consultants effectively facilitate the digital transformation of financial management practices in SMEs to foster long-term sustainability and competitiveness.

Checklist for non-digital consultants to effectively facilitate the digital transformation of financial management practices in SMEs:

1. **Perform initial company and industry specific research online.**

   Document the findings and start making a monitoring plan while looking at industry specific trends.

2. **Have the first meeting with the manager.**

   Discuss the feasibility of the project within the budget, deadlines, possible ROI on the basis of past cases, digital vision, what system the SME is looking for, proposed problem, expectations of the SME, their drivers for change and other points that are of relevance during the conversation.

3. **Have conversations with employees and stakeholders to collect useful data like currently used legacy systems.**

4. **Perform a digital company and competitor analysis with a root cause analysis, SWOT analysis, KPI's, and other data analytic tools.**

   Include digital maturity, technical bottlenecks, data flows, interoperability of systems, data compatibility and system architecture. Also collect data.

5. **Develop the problem statement**.

   Include technical bottlenecks, possible causes, business impact, data gaps, API failures.

6. **Communicate the problem statement to the manager and stakeholders and communicate with the IT expert how they want their data structured.**

7. **Develop solutions and a digital vision (together with the IT expert if that is needed).**

   Look at past cases, digital readiness and include common digital tools and systems like: All-in-one business systems, digital cash management, API,'s, BI tools, cloud and AI systems, ERP tools, no-code platforms or SAS pre-coded systems.

8. **Prepare a presentation to convince the manager, the IT expert and stakeholders of the implementations of the developed solutions.**

   Include ROI, visualizations, competitive and non-competitive benefit, business impact and future possibilities.

9. **Develop a document in which every finding has been documented.**

   Include legacy systems, cleaned and processes data, desires from the SME, system architecture, technical bottlenecks, digital maturity.

10. **Develop an implementation plan together with the IT expert.**

    Include data collected, WBS, different scenarios, needed data, needed employees, needed systems, risks and how to manage them, security updates, ISO standards.

11. **Communicate the implementation plan with managers and stakeholders and explain what it means for them.**

12. **Set up training and education functions to help employees with their digital understanding.**

13. **Prepare the data, systems and working spaces.**

    Make sure that the existing systems are ready for the new implementation, an ETL plan is implemented past data is safely stored, legacy systems can be integrated and data is grouped.

14. **Implement a pilot phase for the system or application that the IT expert developed.**

15. **If the pilot phase was successful, implement the rest of the change together with the IT expert.**

    If the pilot phase was not successful, make changes to the system and implement another pilot phase.

16. **Develop a monitor plan for the manager and evaluate the change process.**

    Set up KPI's, look at the systems performance, analyse what part of the system is mostly used and analyse employee experiences.

17. **Develop a final report and give final recommendations**

    Include a broad summary of the process, results of the pilot phase and implementation phase and methods for further improvements.

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5 DISCUSSION

5.1 Interpretation of results

Out of the interviews comes the conclusion that a checklist based on literature simply lacks the practical implementability which is needed for a successful consultancy process. Main points are covered, but additional steps usually taken by consultants are missing. Where the literature stated some digital software and tools, the checklist of the interviewees lacks this information. This can mostly be explained by the inexperience of the non-digital consultants and the repeated usage of these steps.

Although digital knowledge, like knowledge about AI, API's, legacy systems, ERPs etcetera., is needed for a digital consult, human interaction is just as important (Noer, 2017). Since SMEs often do not have the required digital systems, budget and knowledge, implemented changes also do not tackle extremely complicated digital cases. In supply chain management, topics that require a lot of coding, like process optimalisation, are often implemented (Sadraoui & Mchirgui, 2014). In financial management, the focus lies much more on pre-coded systems (Savina & Kuzmina-Merlino, 2015). The focus on human interaction to limit resistance to change is, as seen in the interviews, much more desired than tips or steps about coding. Since coding of software will be done by the IT expert, no broad steps are needed. It is however of importance that there are steps available that focus on data preparation and extensive digital research.

It is clear what interviewees want in their checklist. Since the checklist will mostly be used by starters or for difficult cases, a broad checklist is desired without it being too complicated. The checklist should focus on documentation and monitoring of all processes to facilitate the final report and the working methods of the IT expert. A data-driven approach should be taken. Communication should be implemented in every step to mitigate resistance to change and speed up the implementation process. It is of importance that research on software, systems and tools is done before collaboration with the IT expert takes place since this will facilitate the efficiency and flow of the project.

The demands that the digital consultants state, also need to be implemented in the checklist. These are much more digitally oriented and provide a good overview of steps that need to be taken before a digital expert can perform their job.

5.2 Theoretical implementations

This research has the purpose to propose a helpful tool that non-digital consultants can use for digital consultations. Adding to this, is the aim to fill in the gaps in the literature regarding digitalisation of financial management within SMEs and providing practical examples and theory on the topic of digital consultancy practices. Within the first three sections of the literature research, the topic of digitalisation is covered. This section gives an overview of methods, tools and ways that SMEs use to implement digital tools within their business model and strategy. In the fourth part, more detailed information is given on the subject of consultancy. In the sections it is proposed that a checklist would help with the rightful implementation of digital tools within the SME. The literature provides topics and steps that need to be covered to mitigate resistance to change and to have an efficient consultation and implementation process.

5.3 Practical implementations

The practical implementations of this research weigh heavier than the theoretical implementations due to the more practically oriented solutions. Within this paper, a lot of information is provided regarding digital consultation processes. This information can be used by beginning consultants or consultants that struggle with digital implementation.

Furthermore, the checklist that is developed within this paper can be used by consultants that struggle with digital implementation and advise. Due to the fact that the checklist is not limited to one company, it could be used by a wide scale of consultants. Even if the consultation process is non-digital, steps can be followed or altered to the consultants own liking. Since there is no mandatory order that needs to be followed, users have the freedom to skip steps or add steps if that is needed for their project. Due to the information provided about the checklist, managers of consultancy firms could implement the proposed checklist into their strategy and vision. Even if the proposed checklist will not be used, it can be used as inspiration or as an example to develop a personalised checklist.

5.4 Limitations

The proposed results do have some limitations. In the results, a final checklist is proposed. If the interviews would however have been with different individuals, it would differ from the one developed now. The literature gives a stable basis and the similarities within the answers provide some kind of conformation that the checklist covers the main points but concrete measurements, that have the aim to see the effectiveness of the checklist, are however missing.

The small sample size for this research could be seen as a limitation, since six individuals can hardly be representative for a whole branch of consultants. Although the answers laid in line with each other and follow-up design discussions took place, more interviews have the possibility to gather data that is more representative for the whole group of consultants.

Since the sample size of this research can be considered as small, it is not fair to say that the checklist can be generalised for all consultancy firms. Since only employees of Deloitte are interviewed in this research, some results are specific to Deloitte only and do not grasp the methods and experiences of other consultancy firms. Since consultancy steps and change management methods are based on the most effective methods, small indications for generalisation can be found, but these need to be further researched.

A further limitation is the lack of validation of the checklist. The long term effects of the checklist are not tested and with one case study, a checklist cannot be validated.

5.5 Further research

To make sure that the checklist is the most optimal method for digital consultancy, further research can be done. A larger amount of case studies can be performed to test if the checklist can be further practically validated. The case studies can be used to test if other steps, which are less focussed on preparation and the humanistic side, could increase efficiency even more.

While the checklist is broad, further research could look at the customization of the checklist to better lay in line with certain projects and companies. Since SME's could be active within a variety of industries, the checklist proposed now could be less applicable for certain industries. In an industry more focussed on PSM, more hard coding principles are used and thus, the checklist should lay more in line with those coding principles. Analyses within different industries and research on industry specific factors could be done to give a checklist that lays better in line with a certain industry. Adding to this topic could also be to do additional research on how to make a checklist that is customisable per consultant.

In this research, a lot of attention was given to the development of a checklist. This is however not the only tool that could be helpful for a non-digital consultant for their digital consultancy project. Tools like a journey map or a Gantt chart can also improve the efficiency of a consultation process. In the literature research, some of these methods are slightly touched but a lot of research is not performed. For future research, other methods and tools that could help the non-digital consultant can be analysed and researched to provide more tools for a non-digital consultant.

5.6 Conclusion

The aim of this paper is to show how non-digital consultants could help SMEs implement digitalisation within financial management. Out of the literature comes the conclusion that a checklist can be a helpful tool that could be widely used by non-digital consultants due to its clearness, flexibility and the option for personalisation. Through a combination of a literature research and data collected from interviews, a checklist is developed. The steps that are proposed in the literature lack the practicality which is needed for a successful usage of a checklist. Practical steps are needed to fill in the gaps which were left by the literature. A checklist should be broad and cover every step in the consultancy process. A balance should be found between humanistic change management methods and more practical digital topics.

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APPENDIX

Appendix A – Interview protocol

- On a scale from one to ten, what do you score your digital competence?
- Do you have any difficulties with consulting digital change within a SME process and if so, what are the possible causes and solutions.
- What methods do you tend to use when you need to consult a digital change and what are the processes you go through?
- If you were to develop a checklist to help with the implementation and consulting process of a digital process or tool within a SME, what would the checklist look like and what points certainly need to be present in every checklist
- Do you have any checklists or frameworks at your disposal and if so, could you describe these and if you use them, could you provide any positive or negative points about this?
- What are your opinions about this checklist, do you think that it is something that you will use and would it be something that other non-digital consultants would use?
- What are the positive parts of this checklist, what are the negative parts about the checklist and what would you change about this checklist to make it a checklist you would use?

Appendix B – Research object

The interview will consist of a variety of questions that are used for the interview protocol, all with different aims. Below an overview of the questions can be found with a short description on why these questions will be asked. Note that these are the main questions the interviewer will use, additional questions are not stated below and depend on the situation.

The first question that will be asked will be: On a scale from one to ten, what do you score your digital competence? The aim of this question is to group the answers based on the digital competencies and see if there are patterns based on these competencies.

To see if there are any difficulties the non-digital consultant deals with concerning digital advise, the next question focusses on mapping out these problems and difficulties. The goal of this question is to map any difficulties a non-digital consultant might have and, without linking it to a possible checklist, see if the interviewees themselves do have solutions for their problems. The question that is associated with this is the following: do you have any difficulties with consulting digital change within a SME process and if so, what are the possible causes and solutions.

The third question goes further on digitalisation and consist of the question: what methods do you tend to use when you need to consult a digital change and what are the processes you go through? The answers to this question may vary a lot but are of great importance, without asking for a checklist, parts of their desired checklist are stated. The follow-up question depends on the methods described and on how clear these described methods are.

The next question will have the aim to let the interviewees develop a checklist based on their own desires and views, the regarding question is: if you were to develop a checklist to help with the implementation and consulting process of a digital process or tool within a SME, what would the checklist look like and what points certainly need to be present in every checklist. For this question they can use pen and paper to write out the checklist or use any other methods they might prefer.

If not stated before, a question will be asked regarding the potential frameworks and checklists the consultant has access to and potentially uses in their consulting process. The question that will be asked is: do you have any checklists or frameworks at your disposal and if so, could you describe these and if you use them, could you provide any positive or negative points about this?

From this question onward, the proposed checklist by the literature will be shown. The aim of the following questions will be to gather opinions on the checklist and see where improvements could be made. The question that will be asked when the checklist will be shown is the following: what are your opinions about this checklist, do you think that it is something that you will use and would it be something that other non-digital consultants would use?

The following question is directly related to the question before and would likely be asked immediately afterwards. In the question before, a general opinion of the checklist will be asked where it becomes immediately visible if the checklist is considered positive, negative or neutral. To go further in dept and see what the reasons for this answer might be, the next question will be asked: what are the positive parts of this checklist, what are the negative parts about the checklist and what would you change about this checklist to make it a checklist you would use?

The questions stated above can be found throughout the interviews and might have a slightly different construction depending on the situation, but the essence of the question will be the same for every interview to give data that is comparable.

Appendix C - Interviews

Interview with interviewee 1 (ID1) (translated from Dutch to English)

Date: 29-04-2025

I: On a scale from one to ten, what do you rate your digital competence?

ID 1: Oh, that is a good question, that depends on what you mean with digital competence.

I: With digital competence I mean: a set of knowledge, skills, and attitudes that individuals need to effectively use digital technologies. So how well you understand digital tools, how often you use them and how well you could use them.

ID 1: In that case, I would rate myself a six and a half. I understand everything on my phone and I game a lot, but I do not have a lot of knowledge about coding etcetera.

I: Alright. And do you know any digital tools that might be useful for work?

ID1: Well of course I know ChatGPT and Headstart. We also use Silverfin and CaseWare for our yearly reports for example. Does Excel count as a digital tool?

I: Yes, I believe so.

ID 1: Well than we have Excel, Word, PowerPoint, PowerBI, Basecone … And that is all I can think of right now.

I: Alright, thank you. You stated that you had a competence level of a 6.5, do you have any difficulties with how you consult on a digital change?

ID 1: Well to be fair, I did not have a lot of consultancy experience yet since I am relatively new, but I did have two cases where I needed to consult on a digital change. One time it was for an elderly owner who wanted to make the change from paper so to speak, to a more digitally oriented administration. And another case was for a fast-rising start-up that had some troubles with software and their accounting tools and some personnel. These were not the hardest consults I have ever done, but there were some challenges I had to overcome. The first case was an extremely fun one since the man had no idea how anything worked and wrote most of the administration down on paper. We do his accountancy practices so that part of the administration was sort of sufficiently digital, but the rest of the administration was all on paper. Since I have not a lot of knowledge about other practices than accountancy and financial management, I advised him that he should firstly write everything down in word and excel instead of paper. Since this was not an actual consult and somewhat more of some advice, less research has been done. I helped the man with his administration in word and excel and gave some tips and tricks that he could use, and he was happy with the help. When I told him that I would change his way of administration, I did not however know any other administrative tools for, for example salary and employees so that could be considered as a difficulty. I told him that for the time being this change would help him with keeping track who needs to be paid etcetera, but in two months I have another meeting with him and there I would like to advise him some more on other tools, but that is something I still need to ask.

I: Alright, that sounds like a fun experience. How do you plan on getting the information to consult a new tool?

ID 1: My plan is to ask around here a little bit at HRM if they have tools which they might advise to clients. If they do not have anything, which would be strange, I can see what competitors are using or I will ask Headstart I think to see if that has any tools that they can implement.

I: Do you use Headstart a lot to look up things you do not know?

ID 1: For some cases, yes, for other cases, no. Quick questions I know that “employee name” or “employee name” know the answer to, I ask them, but since they are a little bit older haha, digital questions I will just ask HeadStart or go to Tax and Legal if it is their part.

I: Why not go to Digital?

ID 1: Well, we do not have digital here in Zwolle, I believe most of them are in Amsterdam and some in Groningen or Leeuwarden. Calling with the service desk is definitely not something I am going to do, then I will just try it myself.

I: Haha, I get that. And what about the other case, did you have more knowledge about that issue since it is more financial management oriented?

ID 1: Yes and no. For the accounting software I had some knowledge and recommended that they use QuickBooks since this is easy to use and good and easy for Deloitte. They were using Jortt, but I myself am not the biggest fan of that tool. It misses some features that are extremely convenient for the accountant and for us.

I: How did you come across Quickbook?

ID 1: Well, “employee name” told me that they always advise their clients to use that program since they like it and think that it is easy to use and when I asked ChatGPT back then, when chat gpt was still allowed to be used, it also stated Quickbook as one of the options.

I: And the other part of the consult, what was that about?

ID 1: Well, the other part had something to do with a question about the potential hiring of a new employee for HRM and if they could let her do some financial administration as well. In theory it is possible to let her do some financial administration. But I told them that it is better to hire someone who is specialized in financial administration since it could cause a lot of trouble. I did tell them that she could do some simple routine work, like I talked with you about the other day.

I: Oh, the entering of the invoices?

ID 1: Yes, things like that. Most of the process is already automated and only need to be checked or need to have a small adjustment so that is something they could do.

I: Alright, thank you. You told me about the methods you use for a consultancy job, but are there any more things you generally do?

ID 1: Well, what I always do when I arrive is ask if I can walk around the office. You can easily spot some parts that can be improved by simply walking around and introduce yourself to the employees. After this, I have a conversation with the manager and they generally explain their problems, what they want to change etcetera. I write everything down and ask some follow-up questions to gain additional knowledge. After this, it is often time for coffee, but after

the coffee, I go back to the office and ask the employees any information I might need. This can include a question about the software they are using, what they think of it, what they find challenging, how long they are working there, things like that. Then when I get back to the office I try to think of possible options I could might give them and if I have found one, I will make a presentation or a text where I try to let them act in on the proposed idea. After they accepted the offer, I will help them with the integration and make a report on what I did and what will change. I also try to make a small handbook for the employees when possible since I know a change can be hard to adjust to.

I: Some people use a checklist they follow when consulting on a change, if you would have to propose the checklist yourself, what would it look like and what certainly need to be in the checklist?

ID 1: Pff, let me think for a moment. Do you have pen and paper by any chance?

I: You could use my laptop if you want.

ID 1: Oh, that is also fine.

The following checklist is a translation from Dutch to English of what has been written down by ID1.

Checklist

1. Walk around the office and introduce yourself.
2. Ask the manager what the problems are and what they want to see change.
3. Ask for additional information by the manager and write these down.
4. Make a plan in your head what the problem might be.
5. Walk around the office and ask employees necessary information like the software they use etc.
6. See if you can think of a change yourself, otherwise ask a colleague or HeadStart.
7. Evaluate the options and work out the best fitting.
8. Propose the change to the manager and try to convince them that this is a rightful change.
9. Make a plan for the change and ask employees to help.
10. Implement the change and be ready for questions.
11. See the upcoming two days if the change is implemented correctly.
12. Make a final report and come back in half a year or make another appointment.

ID 1: I think that I am done.

I: Thank you. Did you have any troubles or difficulties?

ID 1: I did find it hard to come up with the steps to be fair. Since I generally do everything in my own way and every client is different, I have no one way of consulting on a change, it really depends on the situation.

I: Yes, I get that it can be hard. If I had to make a checklist, what points really need to be there?

ID 1: I think it is important that there is a step with employee engagement before a conversation with the manager. Sometimes the manager is the problem, but that is not always seen by the manager self. The planning phase of course needs to have a key place since this is where you develop the plan. Since I am very eager to give good advice that the client can also use, I find it important that there is a close monitoring and that the appointment in the future us part of the process.

I: Alright thank you. Do you have any checklist at your disposal that you can use or that you are using for consultancy practices?

ID 1: If I need to be completely honest, I have no idea. They might be on the intranet, but I have never looked at it. I did not even think about a possible checklist that can be used for consultancy practices. But I think that there should be a framework or guideline available.

I: I have my own checklist that I want to show you and I want to ask your opinion about the checklist, what are the positive points, what do you think could be improved?

ID 1: Alright, well firstly I like the inclusion of the employee collaboration and engagement and the focus on close monitoring and reflection is also a good. I do miss however the specificity. I know that every company is different so every advice is to and a not so specific checklist can be made, but I would like some more in-depth points.

I: Do you have any other points of attention?

ID 1: I do think that the checklist has some potential, but it should overall have more options and be more in-dept. Telling for example what digital tools to use could be one of the solutions, but overall, I like it.

I: Thank you. Do you think this is something you would use?

ID 1: If the checklist gets a little bit more specific, it could be useful. I will probably use it as a safety net and guideline in order to have the freedom I desire. So, use the checklist as a step-by-step-plan where there is room to branch out if needed, but can come back to when the branching step is finished. A consultancy project can sometimes be hectic so a checklist can be helpful, especially if you can check the boxes and have room for comments.

I: Thank you.

Interview with interviewee 2 (ID2) (translated from Dutch to English)

Date: 29-04-2025

I: On a scale from one to ten, what do you score your digital competence level? With this I mean a set of knowledge, skills, and attitudes that individuals need to effectively use digital technologies. So how well you understand digital tools, how often you use them and how well you could use them.

ID 2: I think that I would be around a 4 or 4.5 since I am not very knowledgeable when digital tools are involved. I know how to use my phone and how the programs from Deloitte work, but further than that, I lack behind. I just learned how to use ChatGPT, I think that that says something haha.

I: Do you like to work with the digital tools of Deloitte or do you prefer other methods?

ID 2: In some way I like the new programs and tools since they make my work much easier in most of the cases, but it does bring some problems as well. I hate the software updates and when I cannot reach a file or a certain part of the yearly report due to some stupid rules or errors. The constant changing from system to system and tool to tool is also very irritating. I am lucky that I am the test person for the transition from Basecone to Silverfin, otherwise it would have taken ages before I could understand Silverfin, now I have close explanations and feedback.

I: In your consultancy practices you sometimes have to give advice about digital changes, do you have any difficulties with these projects?

ID 2: I always try to give advice that is non-digital since that is my speciality, but sometimes I cannot give any other advice than a digital one. I do have troubles with digital advice. Sometimes I get the question what I think would be the best system for the SME to use and I simply do not know the answer. I always state that for accounting principles, I like QuickBooks since that is one of the only digital accounting software, I have any experience with, apart from Basecone and Silverfin of course. For the rest I barely advise digital things. When a client really demands a digital change, I often consult the Digital change but for the rest I help them with practical things such as advice on hiring and firing employees.

I: Thanks. What methods do you generally use when consulting a digital change and how does a process generally go?

ID 2: Well, in the cases I do need to consult on digital changes, after the initial research I always try to start with the employees. I think it is of great importance to hear stories from the employees since they give a different point of view. After the conversation with the manager, the real thinking starts and I often look or think of past exercises to help me think. If there is a case that looks like the case I am working on at that time, I will use the data from that case. If, for example, the firms are both dentists with the same problem, for example the administration of people and invoices, I can often use the same methods. When this happens, I still need to look at how to best implement the change. Often the existing administrative systems differ from each other so the transition might be different. Resistance from employees could also be the case like I had by “client name” but mostly, the employees also yearn for a new system. If this is not the case, I can still have a look at past cases but I also need to think of new solutions. I use google for this, my own expertise, tools provided by Deloitte and colleagues. I write a plan, often on-site and elaborate the change with managers and employees if that is the case. For “client name” for example, I have a close collaboration with their receptionist since they do the administrative parts and I have less contact with the owner of the firm since he is too busy with looking at teeth.

I: And how is the implementation process?

ID 2: Well, the implementation process is mostly the installation of the new system and the transferring of data. I always try to engage the employees within this process so that they also know what to do. If client of the clients need to be aware of the change, I always make sure that the person responsible for that will communicate that to the clients. If there are any problems with the implementation, I try to seek what the problems are and how they can be solved now and in the future. After the process has been successfully implemented, I ask if they need help or if we can plan in an evaluation meeting in the future.

I: Thank you. Many companies use certain checklists and frameworks for consultancy practices, if you need to make one you can use, how would that look like and what points need to be there for sure.

ID 2: Can I write it on this paper? And how many steps should it have?

I: Yes, writing on the paper is fine, as long as the handwriting is alright. The length of the checklist is up to you, what you think is most important.

ID 2: The below given checklist is translated from Dutch to English and was developed by ID2

1. Do some initial research online
2. Have a meeting with the manager
3. Have conversations with the employees
4. Look at past cases what can be useful
5. Talk with other stakeholders
6. Look at current technology or current processes and see where potential problems might have occurred and potential could occur
7. Inform employees, ask advice, and set a deadline for when the process will start and end
8. Look for systems or methods that can be used in for example the Deloitte data base, google, digital team or colleagues
9. If urgent care is needed, implement that change immediately
10. Prepare a presentation with explanations and ask if they want a pilot phase or not
11. Prepare the data and systems for change
12. If they want a pilot phase, this is the time for it
13. Implement the change on the deadline day together with employees, preferably with teams if the change is big
14. Plan an evaluation meeting in the future
15. Prepare a plan for the future if they want

ID 2: I think that I am done

I: That is great, thank you. Is this checklist based on something, like a checklist or framework you use yourself?

ID 2: I think that it is a combination of my own expertise and the "checklist" I follow myself. Before I go to the client I always try to make a little planning I write down for myself so that I do not miss anything, these usually consist of a view steps like the pilot, future plans, data preparation and team distribution. These are the steps I sometimes forget since these only are implemented in the past years by conversations with other advisors and some "frameworks I once found online."

I: Do you know what framework that was?

ID 2: I have no idea, that was some time ago and I just wrote down the points that I liked.

I: Does Deloitte have a checklist or framework?

ID 2: I have no idea; I have never used it anyway. Maybe in the beginning but that was something from a colleague, that is also where some of the points are probably based on.

I: Alright, thanks. I will now show you my proposed checklist and I want to ask you to give your experiences and feedback on the checklist. I can take the criticism so do not hold back.

ID 2: Alright, I see a lot of similarities with my proposed checklist, only in different wording and a different order but that does not matter a whole lot. I like that there is focus on reflection and monitoring and the engagement with stakeholders. For me to use the checklist I still miss some specific steps for implementation, like what system to use for what problem. This could be hard however since there are so many varieties etc. that is also why I did not include it in my checklist. I would give some more examples in the checklist to give a clearer idea what needs to happen. So, for example a way to clearly communicate like "make an announcement in the online environment." You could also improve the implementation part, it is now a little too broad and does not provide clear guidance. I think I would use it if these points were somehow added since it could really support me, especially with the demand for digital improvements. The first step, I think is a little unnecessary since there is almost always a need for change, otherwise they would not come to me. You could maybe word it differently.

I: Thank you for your time!

Interview with interviewee 3 (ID 3) (Translated from Dutch to English)

Date: 08-05-2025

I: on a scale from one to ten, what do you rate your digital competence?

ID 3: On a scale from one to ten, I would rate my digital competence at around a 6. I have an alright understanding of various digital tools and technologies, but there are areas where I could improve, especially in keeping up with the latest innovations and trends in digital transformation.

I: Do you have any difficulties with consulting digital change within a SME process

ID 3: Yes, one of the main challenges is the limited resources that many SMEs have. They often have tighter budgets and may not have the personnel available to manage digital initiatives. In addition to that, there can be resistance to change; employees might feel anxious about adopting new technologies or fear that these changes could disrupt their established workflows.

I: And do you know what the possible caused for these difficulties are?

The possible causes of these difficulties often come from a lack of a clear digital strategy and insufficient understanding of the benefits that digital tools can offer. To address these challenges, I believe it is essential to educate stakeholders on the advantages of digital transformation, promote cost-effective solutions, and provide ongoing support during the transition.

I: What methods do you tend to use when you need to consult a digital change and what are the processes you go through?

ID 3: When consulting on digital change, I use a few steps list that I can follow in order to not forget any of the main points. These steps can consist of for example, initial assessment, employee interviews and future meetings. For the rest of the case, I try to write down a clear plan which then will be followed. Every step of the process will be written down since this is easier for me to follow, but also for the manager and some of the employees. After a system or method has been selected with the help of a company analysis, market analysis and problem statement, the consultation will be presented to the manager. If there is an accordance, employees get informed and feedback gets asked. After that, licenses get requested. If there is any other education needed for example, I try to establish these programs together with the manager to ensure an easy transition. After this is finished and the implementation phase has been successfully completed, I will encourage the managers and employees to keep on reflecting on the new method. A close monitoring from the manager and sometimes even me, is also often the case. After a few weeks or months, I come together with a few employees and the manager to discuss the effects of the change.

I: If you were to develop a checklist to help with the implementation and consulting process of a digital process or tool within a SME, what would the checklist look like and what points certainly need to be present in every checklist

ID 3: I think it is best for me to write it down is it?

I: Yes, you can write it down for me on this paper, but only if your handwriting is good enough!

ID 3: I will try haha.

The below given checklist is translated from Dutch to English and was developed by ID3

1. Have a first initial meeting with the manager on the phone to have a better view of what the problem might be and what is expected

2. Do some research on the company

3. Have an in-person meeting with the manager and the employees

4. Perform an analysis of the company with the data provided and the information gathered from the conversations with the employees and managers like the information on the current use systems

5. Address the main problem or point of improvement and state possible solutions.

6. Work out the two main solutions with information from past cases and own experiences

7. If a system is needed, do an analysis of the possible systems and choose the best fit according to budget, current system and desired use.

8. If a solution or improvement has been found, prepare a presentation and an implementation plan outline that can be improved with insights of the manager and the availability of employees

9. If accepted, make the implementation plan and overview and communicate this with employees, preferably in person

10. Inform every stakeholder and ask for their support if that is needed

11. Request software and plan potential information and education day for employees while also train and educate the manager

12. Be open for questions and provide the necessary support

13. Start the implementation process while leading the employees, the data transition and act as a support function

14. Be available for two weeks for questions about the new working method and request monitoring and feedback from stakeholders

15. Ensure continuous improvements and ensure monitoring of the recent change

16. Plan a final meeting

17. Have a final meeting where every aspect of the transition gets discussed and give final advise (good for future cases)

I: Thank you for your proposed checklist. Is this checklist based on a checklist or framework you have at your own disposal or is this based on your own insights?

ID 3: There are frameworks available at the Deloitte data base and I am sure that there are enough frameworks available online, but this is the framework that I came up myself with points that I find very important and should be included in every project.

I: I made a checklist myself that non-digital consultants could use for digital consultations. I would like to ask your opinion about this checklist. I do not mind if there is a lot of criticism because criticism is what helps me the most.

ID 3: I like that the checklist is broad and included a lot of different points. What I do miss however is a broader implementation phase and methods for choosing a system or method. I think a lot of consultants could benefit from a better guideline for these steps since these are the most vague and essential. Especially for new consultants, with less experience and fewer cases that could be reflected on, this could be incredibly helpful. I also think that the stakeholder engagement is missing in some points and I think that overall, there could be some more guidance. The need for change part is a little strange, I do not get the step since there is always a need for change. There is also some duality, like point 2 and point 4 both state that you need to look at past cases. Point 6 for example seems way to theoretical, if I were you I would adjust the step or fuse it together another step. The overall checklist provides some good information and has some great points regarding change management but does not seem to suit the actual steps a consultant takes within their process. Yes, some of the steps cover parts of the important steps within the consultation process but is seems that a lot of the points were developed without keeping in mind the actual practices of consultants.

I: Do you think, with a view modifications, non-digital consultants could use this checklist?

ID 3: Yes, I think as I stated before, that it could be especially useful for starters and consultants with not a lot of experience. Even older consultants with more experience could benefit from the use of this checklist since guidance is always convenient.

I: Thanks!

Interview with interviewee 4 (ID 4) (translated from Dutch to English)

Date 08-05-2025

I: On a scale from one to ten, how would you rate your own digital competence?

ID 4: I would rate my digital competence around a 7. I have a steady understanding of a variety of digital processes due to my former experience in the digital world. But due to the latest developments in the digital world, I have the feeling that I am falling behind. Due to my alternative function that focusses less on digital, I do not focus as much on digital processes as I would like.

I: Do you experience difficulties when consulting on digital change within an SME process?

ID 4: Yes, I do face several challenges. One of the challenges I often face is that SME often do not have a lot of digital knowledge and therefore often lack the necessary data and support functions for a streamlined implementation of a digital process. This often also leads to resistance from employees since they are unsure about the new way of

working. Another problem is the sheer amount of options that are present. For every problem there are a dozen of solutions and software to choose from. Finding the right one can sometimes be very difficult.

I: What do you think are some possible solutions for these difficulties?

ID 4: For the resistance and the digital competence of the employees, enough communication and training could be helpful to take away the uncertainty and unwillingness. The vast amount of options I have when choosing a solution will stay a problem and will probably become even bigger over the next few years. A list of systems and their functionalities and what company fits those systems, could be a helpful tool.

I: What methods do you tend to use when consulting on digital change?

ID 4: Do you mean how a consultancy project goes for me?

I: Yes, that could be the same

ID 4: Well, I think that, as well as every other consultant, that I start with research on the company. Afterwards conversations with the manager and employees will be done. I always think of a problem statement and solution during the conversation with the manager and write it down, but I know that others will do that after speaking to the employees. After the conversations I often have some idea how I want to change or implement things within the SME. On the e-mail I speak about the possible solutions I have, these are broad like: I suggest a new system, to fire this employee or try to digitalize this part of the company. I always look at the budget that I am given and with the wishes of the employees, I can often give a clear solution. After I came up with an advice, I will work out an implementation plan that I can present to the manager and other possible stakeholders that might refuse the offer. After I worked out the plan, I will work on my presentation and present it to the stakeholders. If there is a mutual agreement I will work out the implementation plan in accordance with the manager responsible for the change. In this plan I try to implement some sort of training for employees since this will sort some of the troubles and will highlight possible causes for errors. Before I actually write the implementation plan, I look at the key employees for this process and try to highlight them in my implementation plan. If there needs to be a new system for example, I will highlight the IT department for data preparation. During the implementation process I try to stay active and help employees and the manager with the process. Afterwards I try to ensure good monitoring and feedback and give feedback for the future.

I: If you were to develop a checklist for implementing a digital process or tool within an SME, what key points would you ensure are included, you can write it out on paper.

ID 4: Alright

The below given checklist is translated from Dutch to English and was developed by ID4

1. Research the company online

2. Have a meeting with the manager and employees and try to come up with the problem statement

3. See what methods and systems the SME currently uses and do research on these methods

4. Develop an overview of the proposed problem and communicate this to the manager

5. Do some additional research on possible solutions and communicate those with the responsible manager

6. Look into the possible options in combination with the given budget

7. Finish the implementation plan and request additional information and guides of the possible new system if there is any. If there is no system, see if there is a case study of the new working method.

8. Communicate the deadlines and plan with the stakeholders, try to make a communication plan

9. Prepare the data if needed

10. Start with the implementation of the plan with a pilot

11. See if the pilot is successful, if so, continue further implementation, if not, look for a new solution

12. Start with closely monitoring of the process and be ready for questions and to act as a support function

13. If finished, plan a meeting with the manager about the process and the actions in the future

14. Have a last meeting and see if the client may need your help in the future and give final and concluding recommendations in the final report.

I: Thanks, do you have any existing checklists or frameworks at your disposal? If so, can you describe them and share any positive or negative points about their use?

ID 4: I do not really have a framework or checklist that I often use right now. In the beginning I followed a checklist that was given to me by a former employee for general consultancy practices. I followed this checklist for my first view cases but after a while I think that I developed my own one. This checklist is probably based on the first framework. I think that Deloitte has some frameworks provided but I am not completely sure.

I: I have brought my own checklist that was proposed by the literature and I want to ask you if you can give feedback on this checklist if you want.

ID 4: The checklist can be seen as a good foundation. It has a lot of essential points and could be helpful when you lose track. However, I believe it could benefit from being more streamlined and clearer steps, like the steps for choosing the right system. The steps are really broad and do miss some essential points like the focus on stakeholders and the beginning steps. It seems like a good checklist for change management, which is a big part of the consultation project, but actual steps that consultants take would be more helpful I think. Some points seem more like advise, rather than actual steps that could be taken within a consultancy project.

I do think other non-digital consultants could find it useful, especially if they are new to consulting on digital transformations. However, those with more experience might seek a more specific and broader version that lays more in line with their practices

I: What do you see as the positive and negative parts of this checklist?

ID 4: I do like that there is a clear focus on communication and transparency, which is an essential step for a successful change process. The part with the extensive research is good and is something that many consultants might forget. Doing research solely on a solution instead on a solution specific for that company can lead to problems later on. Overall, I think that the checklist is missing some essential steps in the process and also some more specificity can be helpful for the user.

Interviewer: What would you change about the checklist to make it more effective?

Consultant: I would advise merging similar points and clarifying the expected outcomes for each step. For example, instead of separating documentation and communication, I would create a combined section since these two points lay close to each other. I would also add a broader implementation plan and the steps before this step. Like maybe give examples of what systems to use for what firm or problem. I know that this might be hard to implement and can make the checklist very disorganised, but something like that could be of significant importance. I can clearly see the models that are used in this checklist, although that is not essentially bad, I would rephrase some sentences maybe a little bit since I think that it looks a little bit strange and thus at some specificity. I also think that the first step is unnecessary and should be replaced with initial research or something. What is your goal of the checklist? Since I see that some steps are missing like budget discussion, first intake etc.

I: Well, my goal is to make the checklist be usable for every non-digital consultant. Since every consultancy firm has a different outline and framework on how they work regarding budget discussions first conversations etc. these points are left out of the framework and can be added by the consultant or consultancy firm itself.

ID 4: Alright thank you

I: Thank you

Interview with interviewee 5 (ID5) (translated from Dutch to English)

Date: 12-05-2025

I: On a scale from one to ten, what do you rate your digital competence?

ID 5: I am terrible with digital tools so I would rate my digital competence a solid 3. I know how Instagram works and my mobile phone and I know how the systems here work, but outside of that, I have no clue.

I: Do you have any difficulties with consulting on digital change within a small to medium-sized enterprise (SME) process? If so, what are the possible causes and solutions?

ID 5: Yes, a common sight, often in “older” companies, is a certain resistance to change. A lot of people are scared of digital change since they may think that there job gets taken over or that they simply will not understand the system. One time an employee of a company got so angry at me that he was sent home. He did not believe that a job of a consultant was necessary and that they never bring something good.

I: Sounds like a fun experience. Do you have any other problem with digital change?

ID 5: For me, the whole process of digital change is hard to understand. As I said, I do have some competences with digital tools and systems, but I often try to opt for a non-digital consult. Not every change needs to be digital, sometimes a non-digital solution to a certain problem is easier and more cost efficient than a new digital tool. Due to the upcoming trend of the digitalisation of everything, I do have and need some digital consultations. When I have trouble with the consult, I firstly try to ask any of my employees to see if they have more knowledge about what to do. I do not necessarily have troubles with coming to a solution. For a problem or improvement of administration, an administration software can be a good solution. Choosing the software and implementing it on the other hand, is much worse for me.

I: What methods do you tend to use when you need to consult on a digital change, and what processes do you go through, so what steps do you take in the process?

ID 5: Well, it always starts with the first intake. In this intake, I try to gather all the information I need. This can include things like company culture and values, budget discussions, a tour of the office or building, introduction to employees and their names and roles etc. Many of this data, I have probably already found online before I went to the office, but things like a tour and employee names and functions are always good to have. I also ask access to all the systems and data the company has and start with my initial assessment of the company. In this assessment, I look for systems, yearly reports, working methods, data usage and I try to uncover the core of the problem. Conversations with share- and stakeholders also have a massive impact on the case. The shareholders often have their own ideas of what needs to happen and stakeholders like employees may even see the problem better since they are really working with the systems and working methods. After this has been done, I try to have a detailed problem statement which I can share with the stakeholders and shareholders. I always communicate the problems for transparency reasons and possible insights of stakeholders and explain my vision. Often I can give a general outline of what I will advise or do to see if we lay in one line. If this outline later on is different from what I actually will be doing, I also communicate that. Since I cannot completely be sure that this solution is a proper way for the problem, I will collect data, mostly through conversations with employees and by looking at the systems and yearly reports. Later on, I try to analyse the data and come to a conclusion out of this data. If I see for

example that there is a lot of budget going to marketing campaigns, but the revenue out of these campaigns is not sufficient enough. I can suggest that the use of social media accounts can effectively help with the branding of the company without the high costs of marketing. If the solution or advise has been found, I will make a detailed plan, as far as I can, that I will later share with the manager and the stakeholders. I cannot fill in everything since I also often need inputs from the manager, but before the meeting with the manager I will send them the project implementation plan. In the formal meeting, deadlines and dates will be discussed and after this has been done, stakeholders get informed and if certain employees are needed for the change, these will be taken apart and their job will be discussed. I always try to have different solutions since I sometimes do not exactly know if the proposed change or advise is a good fit according to the manager. I try to present different options for different budgets and different functionalities, in addition to different options for roughly the same budgets and functionalities. The implementation plan needs to be broad and very detailed. I use my own template for this where every deadline, budget, employees and everything you need will be written down. In most of the companies, there is no risk-manager or any other manager of different function available, but if there is one available, I will also sit with them while making the implementation plan. They have their own expertise and may state a point of attention that I would have otherwise missed. In interviews with employees, I try to see there competence of digital tools and in my implementation plan, I act according to that. No digital competence means a lot of training and education etc.. for the implementation process, it can be hard to make a plan. I always try to make an outline, but many times, the planning is a little different. I ask employees and managers to read into the system or working method they are going to use before the start of the implementation for a smoother transition. I am ready for questions and support together with the manager. After the transition has been successful I will let them monitor the change together with me for the first part and after I leave, I will let them keep on monitoring and improving on the change.

I: Thank you for your extensive explanation of your process. This looks like a step by step plan but if you were to develop a checklist to help with the implementation and consulting process of a digital process or tool within an SME, what would the checklist look like, and what points certainly need to be present in every checklist?

ID 5: Alright, I think that it will mostly look like what I just told, but that is fine right?

I: Yes that is alright.

ID 5: Ok

The below given checklist is translated from Dutch to English and was developed by ID5

1. Do initial research online

2. Ask for the necessary information during the first intake with the manager and present yourself to the employees

3. Have conversations with stakeholders

4. Begin with the initial assessment of the company

5. Have additional conversations with employees if information is missing

6. Come up with the problem statement and communicate this to the manager and stakeholder

7. Develop a general advise that provides the vision you are going for right now

8. If this advice consist of a system, do a broad analysis of the systems where different systems get compared on their functions and budget

9. Do a data analysis to seek the ultimate solution

10. Provide this solution to the manager and stakeholder and include motives for this change

11. If accepted develop a detailed plan with the possibility for the manager to add things

12. Present the finalised implementation plan to the manager and if they accept, share this plan with the employees

13. Inform employees who have specific tasks

14. If training or education is needed, request information

15. Let everyone read the project plan carefully and if there is any information presented, let them read this carefully as well

16. Start with the implementation process and be ready for support and questions

17. Finish the implementation process and encourage monitoring

18. Stop personally with monitoring and let the manager communicate their findings with you and give a final recommendations

I: Thank you. Do you have any checklists that you personally use or know that are being used?

ID 5: Well personally I use the checklist that was once given to me by a former employee. I do not really use it anymore, but in my head, I still follow those steps. That is sort of what can be found on paper here. I know other people have their own checklist they sometimes use for hard cases. I do not know if the checklist that was presented to me was one of Deloitte's.

The proposed checklist gets shown

I: What are your opinions about this checklist? Do you think that it is something you will use, and would it be something that other non-digital consultants would use?

ID 5: I think overall, the checklist can be usable. I do miss some points and I think that the points are somewhat vague and less practical. For me, I do not think that I would use this checklist because I like mine better. I do like some points which are not implemented in my checklist so with some rewriting and small changes, I would probably use it

since it is in some aspects broader than mine. The implementation and pre implementation part does lack some clear advice and could be further enhanced. I would make the first step something like: do some research before initial conversation with manager. I like the focus on documentation since I believe that it is of great importance for later use. The sentences could also be a little bit more spread out for some easier reading. Although I like the focus on the whole change process, I think that there is a little too much emphasis on it and to little emphasis on the actual consultation process.

I: Thank you

Interview with interviewee 6 (ID 6) (Translated from Dutch to English)

Date 13-05-2025

I: On a scale from one to ten, what do you rate your digital competence?

ID 6: Well, due to my lack of experience, I do not have the highest digital competence level yet regarding digital systems, but I do have a wide interest for digital tools and know a lot of other tools. I would thus rate my digital competence level at a 7.5.

I: Alright, thank you. Do you have any difficulties with consulting a digital change? And if so, how do you handle these difficulties?

ID 6: To be completely fair, I like consulting on digital changes and do not have problems with the digital aspect. The consultancy part is what causes the most problems for me. Since I am rather new to the world of consultancy, the process of giving advice is somewhat difficult for me. I received some advice from “employee name” and “employee name” which helped me further, but sometimes I still try to find my way.

I: What methods do you tend to use when consulting on a digital change? So how does the process look like for you?

ID 6: Well, I like to do some research before I go to the client to see what I am working with and so I can give faster and better advice. At the first intake conversation the manager and me discuss certain points like the given budget, the given time, the vision and goal of the consultancy project etcetera. If I have the possibility, I always try to have conversations with employees and other stakeholders as well. During these conversations I try to find out the potential causes of the problems or the lesser efficient parts of the company. After I have collected enough data, I will do a company analysis. With the use of this analysis, I try to come up with a problem statement. If I have worked out the problem statement I searched for solutions and possible changes that would improve for example efficiency and effectiveness. When I have a couple of possible solutions that I have worked out, I will present them to the manager. I always try to have the solution lay in line with the general strategy of the firm to ensure a good fit. If I have the freedom and the manager is content with me developing a broader digital strategy, I try to let the strategy lay in line with the current strategy. If they find one solution which they like, I will write an implementation plan for that solution. My implementation plan generally includes the planning, deadlines, budgets, possible causes for failure, tasks per person or group and some other points as well. This will then again be presented to the manager and if they are satisfied and deem it doable, I will communicate the plan with the employees and other stakeholders. I also try to work out if the change has any effect on the customers of the client. If that is the case, I will make someone responsible for the communication with the consumer. I also try to see if the systems that are currently being used in the company, can be supplemented and integrated with the new system or working method. During the implementation process I will try to support managers and the employees and will help with the implementation and adaptation of the new working method or system. After the implementation I try to make a report and give final recommendations for the company to ensure that the proposed strategy will continue to have impact. I do make sure that there is enough knowledge available to mitigate problems in the future.

I: Thank you for your story. Out of my other interviews, it could be concluded that starters often use a checklist or framework that they will later adjust with their own experiences. Do you have a checklist or framework that you are using or have been using?

ID 6: Well, I guess that your conclusion is true because I do have a checklist that I regularly use. I often use the checklist when there is a new sort of case where I do not know the exact structure.

I: Do you like the checklist or would you change something about the checklist. Because there are some negative points for example.

ID 6: Well, as of last week, I have not encountered any problems with the checklist. I thought that it encompassed everything from the consultancy cases, but with the new client that I started with last week, I had to add and adjust some things. For the rest, I like to use the checklist so that I am sure that I tackle every point of the process.

I: Could you show me the checklist if you want? Normally I ask people to develop their own checklist but since you have your own checklist already, you can just show me and if you want, add some things to make it to your liking. It does not need to be extremely specific, but if you want to add, for example, client interviews, this is enough to write down.

ID 6: Alright, I want to show it to you yes. Let me grab it really quick.

The below given checklist is translated from Dutch to English and was developed by ID6

1. Start with research of the company

2. Have conversations with the manager about budget, vision, goal, problems, deadlines, communication, working days and other things you might find of importance

3. Have conversations with the employees and see their view of the problem and find out their needs

4. Collect other data, like systems, rough data and different information that could be helpful

5. Asses the current digital state of the company and the digital

6. Develop a problem statement

7. Develop solutions for the problems stated in the problem statement while keeping in mind the risks and possible causes for failure

8. Present the solutions to the manager and see if there is one solution they prefer

9. If they do not agree with the solutions or do not see it working in practice. Ask where they think problems may arise, what the motive behind the choice is and what they would suggest. (newly added)

10. Try to develop a digital strategy and make that lay in line with the current strategy

11. Develop an implementation plan and present this to the manager

12. Communicate the plan to stakeholders and employees

13. See their feedback and if no negative feedback is given, start with the pilot phase (newly added)

14. If the pilot phase has been successfully integrated, go on with the implementation of the rest of the process while continuing support and help. (partly newly added)

15. Propose a final report including results and the process and develop a final recommendation to the company with the aim of continuation

I: Thank you, do you have any checklists or frameworks yourself which you use?

ID 6: No, I usually just follow the same steps in my head. This can be seen as a checklist maybe.

The proposed checklist gets shown

I: What do you think of this checklist? Would you use it?

ID 6: Overall, the checklist lacks digital tools and systems that need to be looked at. I would not use it right now since I do not believe that it would help me. I have my own working methods and know how to use those. For beginning consultants, I think it could shine light in the darkness for the basic consultancy steps, but additional information about digital tools can be given to further increase usability. For the rest, you did an excellent job and if more digital tools are added, I might even take a look.

I: Thank you.

Appendix D – Follow-up Design Discussions

Follow-up design discussion with FDD 1 (Translated from Dutch to English)

Date: 18-04

I: What are your tasks when you work for a client?

FDD 1: my tasks consist of the formulation of the annual statements, administrative tasks regarding financial management and consultancy practices.

Interviewer: What type of advice do you generally give to SMEs

FDD 1: Generally, I give advice regarding investment decisions, HRM practices like the hiring of a new employee and optimalisation of business practices like methods to improve efficiency in accounting principles. I also have some smaller advice that I give, for example advice on which accounting tool to use. Managers often ask me if the programs they use are good programs and if they use one which I do not like, I am honest and tell them straight in the face.

I: And how do they react to that honesty?

FDD 1: I often see a shock on their face since they think that the program they use is good. I once had a customer who was still reporting their finances with pen and paper. When I asked him why he did it this way, the answer was :"We have always done it this way." When I told him that he could better use an accounting software program since that was also easier for Deloitte, I could see the fear in his eyes. He told me that he was not ready for such a big change but eventually he switched.

I: do you often advice managers to use digital accounting tools?

FDD 1: at first, I also had troubles converting from pen and paper to digital tools but when I saw how much easier it was, I was quickly convinced. After this, I felt joy to advice managers to step away from pen and paper to, so in the beginning of the digital change, I did give a lot of advice. Later, everyone was already using digital tools, so advisory was more on what to use and not convincing managers to use the tool.

I: and what do you think of the whole digitalisation trend?

FDD 1: well, in most cases I think that the trend of digitalisation is a good development. But I do not understand why every aspect of the business needs to be digital. Computers also make mistakes and the switch to a new digital program every two years or so is also tiring. Do you know how much time I spent testing the capabilities of Silverfin? For big projects I get why we are using digital programs, but for projects where there are only a couple of administrative tasks, I enjoy writing them down on paper. It feels like I have more control that way.

Follow up design discussion with FDD 2 (Translated from Dutch to English)

Date: 30-04

I: What do you find the most difficult with the digital change

FDD 2: How fast everything changes and how many systems and possibilities there are. I can hardly keep up with the changes and lose control and oversight sometimes.

I: Do you have any ways you try to keep up?

FDD 2: I try, once a week, to look online for forums where these practices get communicated. Choosing a rightful digital system can be hard but these forums give some kind of feedback.

I: is there any other way you get information on systems or what systems to use?

FDD 2: Well, I write every process down so I can look back at what I did for certain problems and companies. I myself write the positive and negative points down from that system or approach. For "client name" I wrote for example down that the use of Basecone was sufficient to use because all the administration was clearly done and implemented. It is not a lot that I wrote down, but it helps me make a mental map. On the collaboration page, a lot of helpful questions are answered and tips are shared. I always try to look at those tips when they are posted since they could be helpful for me. When there are tips and tricks I can use, I write those down and try to see if I can implement them at the next client. If I have no idea what the answer could be, I can also always ask Headstart, which is specialised in such questions.

I: How do you think a checklist can help you?

FDD 2: It could act as a guideline for a consulting project. Sometimes a start might be hard to find or you get stuck in a certain part of the project. It can also be helpful if certain basic steps that could be applicable for certain companies are implemented in a checklist. Like apply this method with this system for this company, something like that. I know that it is less of a checklist, but it could be beneficial as a step-by-step-plan.

I: And would you like it as a step, or as a branch. So like step 3 is: asking employees, step 4 is: when employees say that the tool does not work, use this tool. Or would you like to have a step where step 3 is: asking employees and step 3a is: use system A if they say system does not work, step 3b use system B if they say they do not like one aspect of the system etc.?

FDD 2: I think I would prefer the last option because it would make it clearer. So have a checklist which is from top to bottom and have a side branch at step 3 for example so you could check that option off without having a very long checklist.

I: Thank you!

Follow up design discussion with FDD 3 (Translated from Dutch to English)

Date: 01-05

I: What are your opinions on market and competitor analysis when doing a consultation project?

FDD 3: Well, it depends on what project I am doing. For small consulting practices or advisory practices, I often do not do any market research, except if I do not have any knowledge about the industry. For some bigger cases, like for example the consultation of a new system or a new working method, I always do some market research because I think that it is important to also see what competitors are doing or what they are using, partly to see where the company can stand out or catch up with a competitor.

I: Do you know if other consultants here also follow the same approach?

FDD 3: Yes, I think it is a common practice at every consultancy practice here since it could lead to valuable insights. I know that "employee name" and "employee name" do it for sure.

I: So, you are saying that this is an important part of the consultant's job?

FDD 3: Yes, it is often part of the first few stages of the project and thus lays ground for the rest of the project.

I: Do you have other methods you use when you need to find, for example, a new software tool for a client to use?

FDD 3: Well, I thus look at the competitors to see what they have if possible. Otherwise, I use past clients and data to see if I have any helpful information and experience there. The database of Deloitte sometimes also has some valuable information, often this is enough information for me to consult on a good change.

I: And what if that is not the case?

FDD 3: I will look online and use search tools like Headstart. Sometimes I even consult google and search for the 10 best accounting software for example and do some good research on those software. If I really do not know what I need to tell, I could ask HRM, Digital or Tax and Legal since they often have specific expertise.

I: Thanks!

Follow up design discussion with FDD 4 (Translated from Dutch to English)

Date 06-05

I: Last Friday I had the opportunity to look at the second part of your consultancy project. In the first part, which was on-site, you had the first conversation with the manager and the employees. Is this right and could you elaborate further on what you exactly did and maybe even what you did before you went to the client.

FDD 4: Yes, Friday I had the first meeting with the manager where he stated his problem to me. Do you need to know his problem for your research?

I: Yes, If you can share it, it could be usable.

FDD 4: Alright so his problem had something to do with errors in his administration, wrongful billing to clients and overall, a slow administrative process including other failures. Due to the recent dismissal of the former accountant and administrator, a new one needed to be found. My first thought was that the new employee caused the problem. I often see in past cases that this is the case. Every company uses a different administration software so it can sometimes be hard for a new employee to adjust to the new system and new tools. I looked at his resume however and found that he had done his internship at BDO and has done

administrative work for some other medium companies. So, I quickly realized that it was probably not his fault. This is also something what the manager told me. The manager looked together with the employee at the processes but did not see where the problems might arise. That is why they came to me, since I have a lot of experience in administration.

I: Before you went to the client, did you do any research on the company or individuals?

FDD 4: Yes, I always try to find as much about the company as possible, even if the information is incorrect, it is better for me to take this in account when consulting. If there is for example a wrong address or anything on Google, this can already be a problem for the company which can be changed. I am not only there to consult on big changes, but I also try to maximise profits in any way possible, even a correction if the address could mean a lot of profit. I write all the information down I can find and try to find similar cases with which I have worked. For this company, a lot of information could be found and the market is well known, I had a lot of cases that I could use. The research I did beforehand was of great importance for this case, however. The address that could be found on Google was wrong and had a slight error in the postal code. The transition from one administrator to the next one made it so that a lot of information needed to be added again, including the postal code. The wrongful entering of the postal code let to some errors in the administrative software they were using.

I: where there some other things that you did before you had the first intake?

FDD 4: Sometimes the manager and I have a small conversation beforehand of about ten minutes on the phone where he or she talks to me about the problems they have and what they think that the cause may be. The tariffs and the budget gets discussed, the meeting gets planned and the expectations are stated. We do this so I can prepare some solutions or bring some other cases so that I will not waste any of his time. I am very expensive haha.

I: And before the meeting on Friday, what did you do?

FDD 4: Well, as stated, I first walked around the office and workplace and then had a conversation with the manager. I gave him some common reasons for his problems to see if he already tried those solutions. If that were the case, I could leave quickly and bill him my standard tariff. For this case, this was not what happened. All the solutions that I gave were tried and the team of the administrative software also did not know the solution, they deemed that it was a human error. My job is not to give digital support, my job is to give improvements, to consult a better way of working or to change methods of working, not to fix small errors. That is why for this case, this was not my main goal. My goal was to improve the administrative tasks and help with implementing a new system or a new working method for both the firm, but also for the clients.

I: Were there any other things that you did at their office?

FDD 4: Oh yes sorry. I walked around after the meeting and asked for the data I thought that was required for me to work on a solution. A conversation with the employees is for me of great importance since they need to work with the proposed new working method or system. Another good reason for a conversation with the employees is to gather their knowledge and experiences. They often have a different view about the system or working method than a manager or I have. I also looked at the systems and working method they use to use for my case. After I leave the office, I usually work out the case and try to find a solution. Since I often do not plan a second meeting before I have a solution, it is of great importance that the solution has been worked out well. For this case, I did not have a lot of time due to other deadlines I had, that is why my initial findings were less broad than usual. Usually, I work alone on the cases, but if I have no knowledge about the subject or not enough time, I request help from others. That is why I asked you to also have a look at the case.

I: And how do you exactly come to a solution?

FDD 4: Well, with a lot of research, anything is possible. Luckily, there was a lot of data present that I could use and other past cases that I did were very helpful. When I do not have any past cases that I can use, I try to look online for solutions. Often I do not look online for specific solutions, but when I think that I have something that can be changed, I look it up online. It is often just my own knowledge that I use which comes forth out of my experience in the subject.

I: And how do you choose for example a system or working method?

FDD 4: If I need for example new accounting software for a company, I first look at the capacity of the company. A bigger company needs a better and broader accounting system than a smaller one. If I know in the first meeting that a new software is needed, I ask what their intentions with the software are. If for example they only plan to use a small portion of the system, I could recommend a cheaper alternative. The budget for the systems gets discussed and the time of implementation. After I have this knowledge and have the necessary data, I can look at the different accounting software. I have my own favourites, but those are not usable for every company. I conduct an analysis of the different tools to search for the best fit. Deloitte has some systems it recommends so I always try to see if any of them might be a good fit. Since there are so many software available, I try to have only two or three which I research intensively. After a while, you know what system the best for what company is, but still research can be helpful to make for example a presentation

I: In the second meeting with the manager, I saw you presenting your idea to the manager, and luckily he accepted your proposal, but what would you do if he did not accept the proposal?

FDD 4: Well with a little persuasion, a lot is possible, but if that does not work, I will use my alternative. I always try to make two presentations in case the manager does not accept the change proposed. If he still does not accept the change, I will ask what he would want otherwise and if that is something that is way out of reach, I will try him straight in the face and hope that he will choose one of my options given.

I: And after the presentation, you talked with the manager about the implementation process, was this a normal approach?

FDD 4: Yes, in theory this is always what happens. Plans for implementation get discussed and this gets communicated with the employees. This is mostly done in person but due to constraints at the client, this was not possible. For me it was slightly harder to communicate with the employees, but via an e-mail sent by me, I try to give the personal touch to the implementation plan. The first e-mail I sent was an announcement that a change was bound to happen. If they had any questions regarding the system, they could send me an e-mail or preferably the manager. In the meeting I discussed the plans for implementation and after the meeting I gave the manager the time to read into the proposed system. A day after the first e-mail, I sent a second e-mail with the corresponding implementation plan. For this case, I needed specific employees for specific tasks. Those employees are informed before the e-mail has been sent and close communication will be employed for the rest of the process.

I: And what will be the next step?

FDD 4: Well, the next step will be the implementation phase where you also would be a part of. From there on forward, a close connection with the employee will be tried to achieve.

I: What were the hardest challenges for you so far in this project?

FDD 4: For me, I had some troubles with the online presentation and meeting part, but that was not very difficult. The real difficulty for this case consisted of two problems. One problem was the wrongful administration. It was not my complete job to solve this. The second big challenge in this project was the decision on what system to use. For me, this is always the most difficult issue since there is no clear guidance on what systems to choose.

I: Thanks!

Follow up design discussion with FDD 5 (Translated from Dutch to English)

I: When you first started with your consultancy career, how did you do your work? Did you use a lot of knowledge from university or use methods from colleagues?

FDD 5: Well, I did not immediately start in the consultancy branch. I first started with accountancy at Deloitte and later grew out to pick up consultancy jobs. I still do some accountancy projects in the busy season, however. But when I went from accountancy to consultancy and advisory, I already had a lot of knowledge about accountancy systems, working methods and the world of administration. Due to this prior knowledge, I found it easier to give advice on those topics. I did not use any advice of colleagues on this part, apart from the working method of a consultant with its administrative tasks like writing hours etc.. For other projects however, which were less focussed on accountancy systems for example, I did make some use from internal documents of Deloitte, consultancy guidelines, past cases and advice from colleagues. One colleague gave me a cheat sheet with information and steps which he used very often in his cases. Since he was working on a lot of cases at the same time, he left room to scribble things down which was very convenient to use. After a while, I adjusted small things which worked better for me, but a lot stayed the same. Later I did not use the paper very often anymore since I knew what I was doing.

I: So, in the beginning you did use some materials which helped you with your consultancy project?

FDD 5: Yes, especially in the early beginning or for projects of which I did not have a lot of knowledge like HRM or digital, I used a lot of frameworks, tips and documents which could help me with my consultation projects.

I: And what did these tools look like? Like how where the frameworks and checklists structured?

FDD 5: They sort of looked like a roadmap in the form of a checklist. It consisted of steps in order but with check boxes next to it to show progress or show missing steps. I made a few copies of the blank paper for myself and added some additional points after a while to my own liking. The framework that I used for example had some good points like the research phase, the implementation phase etc., but I thought that it could benefit from a past implementation phase and a more in dept post implementation phase so I added it.

I: And what you added, was it just one sentence? Did it consist of more steps? Was it a detailed plan? What did it look like?

FDD 5: It consisted of a few steps that in theory could be merged into one sentence but was more structured in separate sentences. It was a description of the task that needed to be done. For the post implementation phase, one step, that was later also copied by others I believe, was something like compare different options for different budgets and different functionalities. If that step were done multiple times, the consultant could use it in a lot of other cases as well, making it more efficient. I know that "Employee name" did a broad analysis of different accounting software and after a view cases, they made an overview where quick points could be found about every software and for what sort of company the software is the best.

The following* follow up design discussion *s all have the aim to ask for feedback on the final proposed checklist

Follow up design discussion with FDD 6 (Translated from Dutch to English)

I: In the past few weeks, I conducted some interviews and had some conversations with employees with questions regarding a checklist for digital advisory practices. With this help, I developed a checklist and I want to gather your opinions on this checklist. Be completely honest because this helps me the most.

The checklist gets presented

FDD 6: I see that you took over some of the points that I introduced to you, I like that I could have such impact on this project. I like the overall flow of the checklist. There are no big jumps and I think that every point gets covered. The last point of the checklist is a little flat and could maybe use some more depth. You could add something about the ROI in the checklist but that is not necessary since it somewhat covered.

I: Would this checklist be something you would use?

FDD 6: Well, actually, maybe yes. Not specifically for every project, but for projects with the aim on digital improvement, it could be a helpful tool. Could you give me a print?

I: Yes, thank you

Follow up design discussion with FDD 7 (Translated from Dutch to English)

I: In the past few weeks, I conducted some interviews and had some conversations with employees with questions regarding a checklist for digital advisory practices. With this help, I developed a checklist and I want to gather your opinions on this checklist. Be completely honest because this helps me the most.

The checklist gets presented

FDD 7: I like the sheer broadness of the checklist. I think that it covers almost all the points and leaves enough room for own interpretation and addition. I am missing however the part where economic benefits etcetera get presented to the manager. For the rest I think that this is an excellent checklist for starting consultants.

I: Would you use the checklist yourself?

FDD 7: Well, as you know, I do not particularly like to use a checklist since I do not like to follow a script. But the last case I did, I quickly lost the overview so in that case, this checklist would be helpful.

I: Are there any other methods or tools you would like to use for a hard or new case?

FDD 7: Maybe some information session but otherwise I would not know any others. You will learn it eventually and I do not think that any other methods will have a big impact.

I: Thank you

Follow up design discussion with FDD 8

I: In the past few weeks, I conducted some interviews and had some conversations with employees with questions regarding a checklist for digital advisory practices. With this help, I developed a checklist and I want to gather your opinions on this checklist. Be completely honest because this helps me the most.

The checklist gets presented

FDD 8: This is a big change from the checklist you showed me the other day. I like that it is way more in line with actual consultancy practices and that the focus not only lies on the theoretical part. The focus on employee and stakeholder engagement is what I think, the best part of this checklist. After your interview I looked at some other checklists and I was shocked by how few times the employee integration was implemented. You starting phase is also very broad and consists of a well-defined explanation. The ending, and specifically, the last step, is for me a little too simplistic. I do not exactly know how you could improve it, maybe add some information about the contents of the report could be added but overall, I think that this can be used by a lot of people.

I: Would you use it yourself?

FDD 8: Well that depends on the situation, for simple cases I do not think I will need it, but for cases that are new or very complex, I think I could benefit from it.

I: Would you like to use other tools when you have a difficult or new case?

FDD 8: Maybe. I do not know any other methods, maybe a training session or something but as of today, I have not had any luck with those. But other than that, I do not know.

I: Thank you

Follow up design discussion with FDD 9

I: In the past few weeks, I conducted some interviews and had some conversations with employees with questions regarding a checklist for digital advisory practices. With this help, I developed a checklist and I want to gather your opinions on this checklist. Be completely honest because this helps me the most.

FDD 9: Firstly, I think that the checklist will be very useful for new consultants since this gives a complete overview of the consultation process. I like how there is also a step before the initial meeting and that the checklist does not end after the successful implementation. The final step is however a little bit too simplistic for my likings. I also miss one point that I also forgot in my own checklist and that was to implement for example the ROI. This is a standard practice in the consultancy world, but for me, it was so standard, that I completely missed it. I recognised later that this is not a common practice for most starters, that might have importance for such checklist.

I: Did you have any other negative or missing points?

FDD 9: I do not think so, it looks good apart from the things I just mentioned. If you would add those, I might even use it for certain cases. If you are ok with sharing it of course, this could be an excellent basis for new consultancy employees.

I: Are there any other tools or methods that you would use if you had for example a hard or new case?

FDD 9: Hmm, I would not know any other methods that could help me with my cases. I think that I am myself responsible for the knowledge and information of digital tools. One way that could be helpful would be some training or something, but very often, this does not really help.

I: Thank you

Follow up design discussion with FDD 10

I: In the past few weeks, I conducted some interviews and had some conversations with employees with questions regarding a checklist for digital advisory practices. With this help, I developed a checklist and I want to gather your opinions on this checklist. Be completely honest because this helps me the most.

FDD 10: the overall checklist looks solid. It covers a lot of points and is broad enough to give the information needed but is not too broad. I like the use of different scenarios, stakeholder engagement and the examples that you give. Like what will be in the implementation plan for example. I do miss this in the last step, however. Maybe this is not the right document, but there is no information available what needs to be in the final report. For the rest, this looks like an excellent checklist.

I: What do you write down in the problem statement and the implementation plan for example?

FDD 10: Well, for the problem statement I always try to include my findings from the assessment phase as a base and state the potential different problems the company has. I broaden these problems by stating the causes for these problems and state their effect on the company. It is not a lot, but it shows what the problems are and where these problems can be found which can be helpful for managers, employees but also for myself.

For the implementation plan I lay out the change process that I am going to implement. These can include tasks for employees, data preparation, vision, deadlines, the solutions, resources needed etc. Just everything you need for a structured implementation.

I: Thanks, and would you use the checklist yourself?

FDD 10: I might use it yes. It is never a wrong thing to have some additional help with consultancy practices. I might not use every step since some projects do not need all the steps, but I think that it could be helpful

I: Are there any other tools or methods that you would like to use if there is a hard or new case?

FDD 10: Well, I think that a consultancy job is something that you learn and constantly improve on with experience. An overview of software to use could be helpful but the problem with that is that it gets outdated quickly and may ignore new developments. For the rest, I think that I have everything that I need.

I: Thank you

Follow up design discussion with FDD 11

I: In the past few weeks, I conducted some interviews and had some conversations with employees with questions regarding a checklist for digital advisory practices. With this help, I developed a checklist and I want to gather your opinions on this checklist. Be completely honest because this helps me the most.

FDD 11: Well as you know, I do not have a lot of experience with checklists and the overall consultancy practices. But to me, this looks like a good and useful checklist which I might use if some things are a little bit clearer for me. The last step can be a little bit more specific for me, maybe explain what needs to be in the final report since I have no clue. I like how you did that with the other steps by giving some examples that could be useful. I recently also got some feedback about my presentations where I needed to be more convincing. Maybe you could add a step like that in the checklist? For the rest it looks like a good checklist which covers, to my understanding, all the points for a successful consultancy case. I really like the broadness of the steps which are not just one simple sentence.

I: If you had a difficult or new case, what would be tools that would help you?

FDD 11: Well, the checklist could be helpful start that could be further enhanced as time goes on, but for that, I would need information and knowledge. I therefore think that a training session or something like that for digital consults could help. This would give me hopefully some more information and tips other than a step by step plan that you can follow. Do not understand me wrong, I like the checklist, but a training could also be helpful to gather some additional information. For the rest, I would not know anything, it is just part of my job haha.

I: Thank you.

The following conversations are with digital-consultants

Follow up design discussion with FDD 12

I: Do you ever work together with other non-digital consultants?

FDD 12: Yes, sometimes. I do not necessarily work together on one case, but we often exchange knowledge and help each other in certain projects. Sometimes they need my help with the implementation part of their consult and the other time I need their help with advise on certain strategies.

I: lets state the case that they need your help with the implementation step, what would be ideal for you? What would be steps needed or done for you to work as efficiently as possible.

FDD 12: Well, if I need to work as efficient as possible, I would need to skip all the meetings since these take up the most time. If the non-digital consultant could write down the important findings from those meetings, that would already safe a lot of time. It is however important that the non-digital consultant writes down the right things. They need to look at the provided data, current systems and digital methods, aim of the consult, what system or digital implementation is desired, budget, feasibility, digital literacy, digital compatibleness.

I: Are there any things the non-digital consultant needs to do? Not write down, but actually perform.

FDD 12: Yes, if they could develop a solution, problem statement, prepare the data and systems, actively communicate with the stakeholders and managers, actually just everything until the implementation phase. That is where I hopefully come into place, and maybe a step before. That would be as efficient for me as possible. After the implementation is over, they could also pick up the rest of the process, like evaluation and final advice. I can make the final advise with them, but if they can present it, that would also save sufficient time.

Follow up design discussion with FDD 13

I: Do you ever work with non-digital consultants?

FDD 13: To be fair, actually not. Our services vary from each other.

I: In the recent years, it was actually proposed that non-digital consultants could help digital consultants with their consults by preparing all the data, have all the meetings and even develop solutions. The digital consultant or expert is then only needed for the implementation of the digital change. If that would be the case, what should the non-digital consultant do to make the implementation as efficient as possible?

FDD 13: Well, they need to do a lot of work then, since that process takes a long time. They need to analyse the digital literacy of the company, legacy systems, API's, digital maturity, technical bottlenecks, data flows, current other systems, problem statement, digital vision of the SME, the non-functional requirements, budgetary constraints, system architecture and other digital related systems and tools. I know that this can be difficult for someone with no digital knowledge. Sometimes a digital plan is not even feasible with the given budget or too risky.

I: You state that they need to analyse a lot of things, are there also things which they actually need to perform?

FDD 13: Yes. Actions like data preparation for migration to the new system, data filtering, preparation, calculation of ROI, development of a risk management plan and the preparation of the system are of great importance for me. I also like a WBS for some oversight. I do not know if I trust them with this task however since I prefer to have my data presented in a certain way.

I: Would a conversation with the non-digital consultant before the data preparation help? In which expectations are discussed?

FDD 13: Yes, I think that that would help if they actually keep their promises but I am not sure. I think with enough communication, this approach. Not too much communication however since at that point, I can better do it myself.

I: Thank you.

The following conversations consist of different scenarios in which the checklist will be tested

Follow up design discussion with FDD 14 (Translated from Dutch to English)

I: Good morning. Some time ago I showed you the checklist that was developed with the help of the interviews. You said that you might want to use the checklist for future cases. To see if the checklist is actually applicable, I have a scenario for you in which you can use the checklist. During this scenario you can ask me some additional information regarding the case. Do you want to participate?

FDD 14: Yes, that seems fun, I have some time today, so let us go.

I: The scenario is as follows: The SME you are consulting is a dentist who wants to implement two new systems within their company. One accounting tool and he wants to better understand his clients. In real life, this comes with a price tag, I do not have a given budget for you since that is not a big deal in the case, let's say that there is an imaginary budget and the budget discussions are positive. Please tell me which steps do not work.

FDD 14: The first step, I can follow. The second step does lack some information if I truly want to follow it. I think that it would be useful for me to know now what systems they currently use. The third step I can fully follow and since I know what I would ask, this is useful enough. For a beginning consultant, it could be a little bit more specific. Analysis methods in step 4 is a little broad but I think that it is sufficient enough, otherwise you need to write down four pages. Step 5, I believe is good. 6 as well. From step 7 things get a little bit difficult. What systems do they use?

I: Just imagine it is the system that is mostly used. The aim of these scenarios is to see where the checklist does not work. Legacy systems for example are always available.

FDD 14: Well, I think it is hard to come up with a solution. Firstly step 7 is rather a broad step, but I do miss some basic digital tools within step 7. I think that a beginning consultant could develop a solution, but not based on this step. Step 8 can be followed. Step 9 is nice. Step 10 is a little flat and could use some more points but is followable. 11 is a nice step, just as 12. Step 13 is a little too basic for a starter. Steps 14 and 15 are not possible I think. The implementation of a system is hard and requires a certain amount of knowledge. Collaboration with an IT expert could help with this step. 16 and 17 are alright.

I: What are your overall thoughts?

FDD 14: I think that the checklist could at this point seen more as a change management model or something since it lacks the digital aim. But with a little adjustment, it could be a checklist for digital implementation, it just misses the practical digital aim.

I: Thank you.

Follow up design discussion with FDD 15 (Translated from Dutch to English)

I: Good morning. Some time ago I showed you the checklist that was developed with the help of the interviews. You said that you might want to use the checklist for future cases. To see if the checklist is actually applicable, I have a scenario

for you in which you can use the checklist. During this scenario you can ask me some additional information regarding the case. Do you want to participate?

FDD 15: Yes, that is okay.

I: The scenario is as follows: The SME you are consulting is a dentist who wants to implement two new systems within their company. One accounting tool and he wants to better understand his clients. In real life, this comes with a price tag, I do not have a given budget for you since that is not a big deal in the case, let's say that there is an imaginary budget and the budget discussions are positive. Please tell me which steps do not work.

FDD 15: The steps for implementation may work in theory, but for me, it is not doable for this case. I am no digital expert and to be fair, when developing the checklist, I only thought about pre-coded systems. If we work together with an IT expert, it would be good to know what they need. For me now, this is not clear. So, the data collection step and analysis step can be broader. Things like what to collect and on what kind of method would be useful. For a case which only needs a pre-coded system, this checklist can be used since this only requires a couple of changes, but for bigger projects, the usage becomes harder.

Follow up design discussion with FDD 16 (Translated from Dutch to English)

I: Good morning. Some time ago I showed you the checklist that was developed with the help of the interviews. You said that you might want to use the checklist for future cases. To see if the checklist is actually applicable, I have a scenario for you in which you can use the checklist. During this scenario you can ask me some additional information regarding the case. Do you want to participate?

FDD 16: Yes, that is alright

I: You are asked to develop a new system for a car garage that better tracks cash flow. They have enough budget available for everything you want to implement. It is asked that you solely use the checklist and not use your own experiences. Is it doable?

FDD 16: No, I don't think that it is doable. There are a lot more thing where the checklist should look at, with the main focus on digital tools. Legacy systems and data preparation should at least be added. I have no idea how I develop a system, a digital expert is needed for that. Maybe you can speak with them and see what they would need for the development of the system. I reckon that a lot more digital tools and systems need to be added and analysed. So sorry to say it, but I don't believe that I can do it.

I: Alright, that is no problem. I have spoken with a digital expert already and they gave me valuable insights. Thank you for your time.

Follow up design discussion with FDD 17 (Translated from Dutch to English)

I: Hello. Some time ago I showed you the checklist that was developed with the help of the interviews. You said that you might want to use the checklist for future cases. To see if the checklist is actually applicable, I have a scenario for you in which you can use the checklist. During this scenario you can ask me some additional information regarding the case. Do you want to participate?

FDD 17: Yes, I want to participate.

I: For your scenario, you see that the currently used system is not up to par and does not communicate well with the other used systems. What would you do and is this doable with the sole usage of the checklist?

FDD 17: Well, communication with the systems shows me that there is a lack of or that there are bad API's. This is however my own experience. If I needed to follow the checklist, I am not sure if I would find it. It lacks the, how do you say it? Hard digital steps? Steps like API, SAS and ERP are missing and should be added if these kind of questions were asked. I thought that pre coded systems were what you meant with digital change so that is what I put in my checklist. I do not have a lot of experience with all of these implementations yet. I think that the base is standing strong, but it sure needs to be complemented with hard digital tools, systems and methods.

Appendix E – Checklists

Developed checklist by the interviewees

1. Start with initial research online
2. Have the first meeting with the manager in-person and discuss the problems, the budget and the goal like for example a possible pilot phase and other deadlines
3. Have conversations with employees and other stakeholders
4. Start with an initial assessment of the company based on the conversations and observations
5. Collect necessary data like working methods outcomes of interviews with employees, software usage, yearly reports and working times
6. Develop the problem statement and communicate this with the manager and stakeholders
7. Develop possible solutions or advise by making use of colleagues, past cases and the internet and communicate this with manager and stakeholders
8. If a system is needed do an extensive analysis of the capabilities of the systems, their costs and the fit with the company
9. Work out two main solutions based on budget, functionalities and fit
10. Communicate the two solutions with the manager and if accepted work out the implementation plan while leaving room for the manager to add points
11. Present the plan to the manager and if accepted, communicate the plan with the stakeholders and

take apart employees with a special function within this plan

12. Look into the possibilities of education, training and a support function for questions and let the employees read into the change and start with data preparation in collaboration with the IT department
13. Start with the implementation of the change while leading the change and be ready to act as a support function (if a pilot phase was proposed, implement the pilot phase. If successful implement full change, otherwise adjust)
14. Start monitoring the change process and make a report
15. Finish the change and evaluate the process and the new change while also encouraging continuous development
16. Let the SME perform continuous monitoring and plan a final meeting for evaluating

Checklist based on the working methods by employees

1. Start with research online
2. Have the first meeting with the manager where deadlines, goals, budgets, expected problem statement and vision are discussed
3. Have conversations with employees and see what software and methods they use
4. Make an initial assessment of the company based on their working methods, conversations, background information and any other data collected
5. See if past cases have information that can be used
6. Do a more specific assessment of the company with a broader data analysis
7. Identify the problem statement and communicate this to management
8. See what the possible solutions might be and work these out slightly while looking for key employees for this process
9. Communicate the vision you are going for with the manager
10. Do a broad analysis of the different systems that can be useful based on budget, functionalities and company fit
11. Work out the best solutions and develop an implementation plan
12. Make a presentation and present the solutions and implementation plan to the manager and ask for feedback
13. Communicate the implementation plan to the employees and stakeholders and see if there is any feedback or need for education and training
14. Prepare data if needed and let employees read into the newly proposed working method or system
15. Implement the change and act as a leading but supporting actor while also monitoring positive points negative points and differences from the implementation plan
16. Set up a monitoring plan and engage an active continuation plan
17. Plan a final meeting and maintain a good relationship

Combined checklist of working methods and the checklist proposed by the interviewees

1. Start with initial research online
2. Have the first meeting with the manager in-person and discuss the problems, the budget and the goal like for example a possible pilot phase and other deadlines
3. Have conversations with employees and see what software and methods they use.
4. Make an initial assessment of the company based on their working methods, conversations, background information, observations and any other data collected.
5. Collect necessary data like working methods outcomes of interviews with employees, software usage, yearly reports and working times and look if past cases could be used
6. Do a more specific assessment of the company with a broader data analysis.
7. Develop the problem statement and communicate this with the manager and stakeholders
8. Develop possible solutions or advise by making use of colleagues, past cases and the internet and communicate this with manager and stakeholders like key employees
9. Communicate the vision you are going for with the manager.
10. If a system is needed do an extensive analysis of the capabilities of the systems, their costs and the fit with the company
11. Work out two main solutions based on budget, functionalities and fit
12. Communicate the two solutions with the manager and if accepted work out the implementation plan while leaving room for the manager to add points
13. Present the plan to the manager via a presentation and if accepted, communicate the plan with the stakeholders and take apart employees with a special function within this plan
14. Look into the possibilities of education, training and a support function for questions and let the employees read into the change and start with data preparation in collaboration with the IT department

15. Start with the implementation of the change while leading and monitoring the change and be ready to act as a support function (if a pilot phase was proposed, implement the pilot phase. If successful implement full change, otherwise adjust)
16. Set up a monitoring plan and engage an active continuation plan.
17. Finish the change and evaluate the process and the new change while also encouraging continuous development
18. Let the SME perform continuous monitoring and plan a final meeting for evaluating

Final Checklist before feedback

1. Perform an initial company and industry research online and start with the documentation and the monitoring of the whole process that will be continued until the end of the last step
2. Have the first meeting with the manager and discuss: the budget, deadlines, vision, proposed problem, expectations, their drivers for change and other points that are of relevance during the conversation
3. Have conversations with employees and stakeholders and collect other useful data like systems that are being used and needs from employees
4. Perform a company and competitor analysis and develop an (digital) assessment of the company and start with the documentation of the case by using analysis methods applicable for this case
5. Develop the problem statement and try to map all the possible factors that led to the problem and points of improvement. Also include the needs of the employees
6. Communicate the problem statement to the manager, employees and other stakeholders to see if any points are missing or have a higher importance.
7. Develop solutions, ways of improvement and a digital vision that lays in line with the current strategy and systems by looking at: past cases, need analysis, the collected data, present strategy, digital readiness of the company, budget and communicate these with the manager and stakeholders.
8. If a new system is needed, perform an extensive analysis of these systems by looking at the budget, the functions, the fit within the norms and values of the company, integration capabilities, working methods and the desires and needs of the manager and employees.
9. Develop the implementation plan based on different scenarios where the planning is stated, necessary resources, key employees, specific teams, expectations, possible risks and challenges and the digital vision.
10. Communicate the implementation plan with the manager, shareholders and other stakeholders ahead of time, collect feedback and explain, especially to the employees, what this change means for them, the positive effects of the change and help them prepare for the change.
11. If accepted, communicate the change process with customers if the change influences those and set up support and training functions for employees and managers and encourage the digital adoption.
12. Prepare the data, systems, working space and employees for the change with information about the system or working method, software updates, the possibility for linkage with the current systems and training and education.
13. Implement a pilot phase for separate groups within the company while the other groups finish their projects which still use the older working method and compare and monitor and ask feedback about this process.
14. If the pilot phase was deemed successful by the employees and managers, implement the rest of the implementation plan while acting as a supporting character while being transparent about the process.
15. After the change has been implemented develop a monitoring plan that the manager can follow, evaluate the change process together with the stakeholders, encourage digital continuation and plan a final meeting.
16. Develop a final report including a final recommendation that will be presented at the final meeting.

Proposed checklist before the case study

1. Perform an initial company and industry research online and start with the documentation and the monitoring of the whole process which will be continued until the end of the last step
2. Have the first meeting with the manager and discuss: the budget, deadlines, vision, proposed problem, expectations, their drivers for change and other points that are of relevance during the conversation
3. Have conversations with employees and stakeholders and collect other useful data like systems that are being used and needs of employees
4. Perform a company and competitor analysis and develop an (digital) assessment of the company and start with the documentation of the case by using analysis methods applicable for this case
5. Develop the problem statement and try to map all the possible factors that led to the problem and points of improvement. Also include the needs of the employees
6. Communicate the problem statement to the manager, employees and other stakeholders to see if any points are missing or have a higher importance.

7. Develop solutions, ways of improvement and a digital vision that lays in line with the current strategy and systems by looking at: past cases, need analysis, the collected data, present strategy, digital readiness of the company, budget.
8. Prepare a presentation to convince the manager and stakeholders by including a detailed description of the solution, problem statement and the risks, ROI of the project, the key competitive and non-competitive benefit, the digital benefit and possible further steps that could be taken, and communicate these with the manager and stakeholders.
9. If a new system is needed, perform an extensive analysis of these systems by looking at the budget, the functions, the fit within the norms and values of the company, integration capabilities, working methods and the desires and needs of the manager and employees.
10. Develop the implementation plan based on different scenarios where the planning is stated, necessary resources, key employees, specific teams, expectations, possible risks and challenges and the digital vision.
11. Communicate the implementation plan with the manager, shareholders and other stakeholders ahead of time, collect feedback and explain, especially to the employees, what this change means for them, the positive effects of the change and help them prepare for the change.
12. If accepted, communicate the change process with customers if the change influences those and set up support and training functions for employees and managers and encourage the digital adoption.
13. Prepare the data, systems, working space and employees for the change with information about the system or working method, software updates, the possibility for linkage with the current systems and training and education.
14. Implement a pilot phase for separate groups within the company while the other groups finish their projects which still use the older working method and compare and monitor and ask feedback about this process.
15. If the pilot phase was deemed successful by the employees and managers, implement the rest of the implementation plan while acting as a supporting character while being transparent about the process.
16. After the change has been implemented develop a monitoring plan that the manager can follow, evaluate the change process together with the stakeholders, encourage digital continuation and plan a final meeting.
17. Develop a final report which includes a broad summary of the whole project, results of both the pilot phase and the final implementation, methods for further improvement and a final recommendation that will be presented at the final meeting.

Proposed checklist after case study

1. Perform an initial company and industry research online and start with the documentation and the monitoring of the full process which will be continued until the end of the last step

2. Have the first meeting with the manager and discuss: the budget, deadlines, vision, proposed problem, expectations based on past cases, their drivers for change and other points that are of relevance during the conversation

3. Have conversations with employees and stakeholders and collect other useful data like systems that are being used and needs of employees

4. Perform a company and competitor analysis and develop an (digital) assessment of the company and start with the documentation of the case by using analysis methods applicable for this case

5. Develop the problem statement and try to map all the possible factors that led to the problem and points of improvement. Also include the needs of the employees

6. Communicate the problem statement to the manager, employees and other stakeholders to see if any points are missing or have a higher importance

7. Develop solutions, ways of improvement and a digital vision that lays in line with the current strategy and systems by looking at: past cases, need analysis, the collected data, present strategy, digital readiness of the company, budget

8. Prepare a presentation to convince the manager and stakeholders by including a detailed description of the solution, problem statement and the risks, ROI of the project, the key competitive and non-competitive benefit, the digital benefit and possible further steps that could be taken, and communicate these with the manager and stakeholders

9. If a new system is needed, perform an extensive analysis of these systems by looking at the budget, the functions, the fit within the norms and values of the company, integration capabilities, working methods and the desires and needs of the manager and employees

10. Develop the implementation plan based on different scenarios where the planning is stated, necessary resources, key employees, specific teams, expectations, possible risks and challenges and the digital vision

11. Communicate the implementation plan with the manager, shareholders and other stakeholders ahead of time, collect feedback and explain, especially to the employees, what this change means for them, the positive effects of the change and help them prepare for the change

12. If accepted, communicate the change process with customers if the change influences those and set up support and training functions for employees and managers and encourage the digital adoption

13. Prepare the data, systems, working space and employees for the change with information about the system

or working method, software updates, the possibility for linkage with the current systems and training and education

14. Implement a pilot phase for separate groups within the company while the other groups finish their projects which still use the older working method and compare and monitor and ask feedback about this process

15. If the pilot phase was deemed successful by the employees and managers, implement the rest of the implementation plan while acting as a supporting character while being transparent about the process

16. After the change has been implemented develop a monitoring plan that the manager can follow, evaluate the change process together with the stakeholders, encourage digital continuation and plan a final meeting

17. Develop a final report which includes a broad summary of the whole project, results of both the pilot phase and the final implementation, methods for further improvement and a final recommendation that will be presented at the final meeting.

Appendix F – Tables

Model	Description	Best to use for
ACMP standard for change management	Covers five key processes with the focus on evaluation and engagement (Errida & Lotfi, 2021)	Implementation of new technologies
Agile change management	Includes principles that aim at flexibility, collaboration and small changes (Fowler & Highsmith, 2001)	Continuous improvements
Bridges ending and beginning model	A framework focussed on the transition instead of the change. It consists of three phases (Bridges & Mitchell, 1991)	Situations regarding personnel and personal change
Business process reengineering	Focusses on the radical redesigning of processes. It often consists of six steps (Harika et al., 2021)	Radical business redesigning
Capability maturity model integration	A bundle of models that provide guidelines for process development. Usually consistent of five levels (Chrissis et al., 2011)	Continuous process improvements
Carnall's change management model	A model that focusses on individuals and organisation and its effects on change (Carnall, 2007)	Implementation of new technologies and the effect on individuals
Hayes change model	A six (or seven) step model forming a baseline for implementing change (Hayes, 2014)	All change processes
Hoshin Kanri process	A framework focussed on goal setting and the use of daily activities to implement change (Dias & Tenera, 2020)	Change processes where digital tools are already applied and where there is some pressure to achieve goals
Kotter eight step process	A model that describes the process of large-scale organisational changes (Laig & Abocejo, 2021)	Large scale changes in companies that look like political systems
Transformational leadership model	This is a model made for a leader or manager to show that working together is often better than to direct (Burns, 1970)	Leading the change where resistance can be found and needs to be overcome
Scenario planning model	A framework that creates various scenarios that	Scenarios where there is high uncertainty what may happen

	could occur within the change (Chermack, 2004)	

Table 1. Overview of models

Appendix G – Comparison of the frameworks used for the checklist based on literature

The frameworks that can be found in the table in Appendix F and will be used in the following section, have a lot in common, but most of them have one of two points that are different from the other frameworks. The baseline of almost all these frameworks is Hayes change model (Hayes, 2014). The steps of this model can also be found in the different frameworks. The ACMP standard for change management model is the model that most closely resembles Hayes change model (Errida & Lotfi, 2021). The only difference that can be found in the last step where the focus lays on the evaluation and the restart of the process after evaluation. Where the ACMP model focusses on the end evaluation, the capability maturity model focusses on continuous evaluation of the rest of the process, where change is classified by one of the five maturity levels (Chrissis et al., 2011). Closely in line with the capability maturity model integration, lies the business process reengineering approach (Harika et al., 2021). Continuous evaluation is also a step in this approach, but here the focus lays on redesigning processes with the help of digital tools, often with radical changes. On the other hand, lies the Hoshin Kanri model, which focusses on small changes that could be implemented in daily activities (Dias & Tenera, 2020). The agile manifesto also focusses on small changes which improves flexibility, but this approach also focusses on transparency and collaboration with employees (Fowler & Highsmith, 2001).

Where the models described before are more focused on the process itself, the following models and frameworks are based on the transition a SME makes and their employees. The change management model proposed by (Carnall, 2007) focusses on the transition employees make and how to help them during the change. This is also proposed in Hayes model, but Carnalls model goes further in dept. The model proposed by Bridges, which is often combined with the Kübler-Ross model, describes the acceptance and ending phase, which is lacking in Carnalls model (Bridges & Mitchell, 1992; L. Lindblad, 2022). In addition to these models, the transformational leadership approach supports the method of collaboration which is proposed by Burns, (1970). Kotter's eight step model is used for situations where it is hard to empower employees and managers (Laig & Abocejo, 2021) The steps of Hayes six step model can be found in this approach, but Kotter focused more individuals.

Where the models before often focus on one or two outcomes, the scenario planning model keeps in mind the various outcomes and occurrences a change could have by imagining different scenarios for each step (Chermack, 2004).

Appendix H – List of abbreviations

ACS	Access Control System
AI	Artificial Intelligence
API	Application Programming Interface
BI	Business Intelligence
DevOps	Development and Operations
ERP	Enterprise Resource Planning
ETL	Extract, Transform, Load
FDD	Follow-up Design Discussion
IAM	Identity Access Management
ID	Interviewee of Deloitte
I.E.	Id Est
IoT	Internet of Things
IPaaS	Integration Platform as a Service
ISO	International Organisation for Standardisation
IT	Information Technology
KPI	Key Performance Indicator
MVP	Minimum Viable Product
ROI	Return On Investment
RPA	Robotic Process Automation
SAS	Statistical Analysis System
SME	Small and Medium-sized Enterprises
SQL	Structured Query Language
WBS	Work Breakdown System