Consulting Business Models in the Digital Era

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Abstract. Consulting research and consulting practice needs to think beyond digitalization. Consulting business models for a digital ecosystem are requested but can rarely be found in the relevant literature and the market. Coping with legacy systems and shifting historical strategy decisions is still on the agenda of many consulting projects. This paper aims to deliver a scientific building block to the consulting business by exploring the consulting processes and methods in the digitalized age. Based on semi-structured interviews with different kinds of consulting firms, a multiple case study has been designed. As our research shows, Digital Transformation has a substantial impact on consulting research and consulting in practice. Both have to be reconsidered in the digital context, for instance concerning business models, science and data-driven methods or rapid prototyping. The authors aim – practically - to deliver a Business Model Canvas for future consulting and to create an explanatory model for the information system-centric perspective on business model research.

Keywords: Digital Transformation, Consulting Research, Business Model Innovation

1 Introduction

Digital Transformation (DT) has a tremendous impact on almost all areas of society, personal life, and business. Consulting Research, which intends to provide both scientific and practical perspectives to the consulting industry [20], represents an IS-research stream, which is affected by DT in different ways (see section 2.1). In parallel, enterprises face a sharp digital shift and claim (at least more and more) IT not only as a corporate function but as a core driver for innovation. We assume here that the same concept applies for consulting companies; thus, innovation and strategy consulting will go stronger hand in hand with IT focused consulting [15].

These initial aspects define the frame of our research. More precisely, we want to answer the following research questions: Which key-drivers for DT exist within consulting companies in general? In a digitalized world, how could a business model for an IT and innovation focused consulting company look like?

To answer these questions, we structured the paper as follows. First, we want to create a theoretical background based on brief introductions to the different aspects of
the given phenomenon. Next, we describe our data gathering method. We will interpret this data, using a qualitative research database for our coding. As a main practical outcome, a Business Model Canvas (BMC) will be provided, as well as two artefacts for a more scientific audience, interested in the data utilization. Finally, we sum up our results and criticize our work as a baseline for future research projects.

2 Connecting the Dots: Background and Related Research

2.1 Consulting Research – Context and Scientific Classification

Like all organizations and companies, consulting firms are facing rapid and constant changes in their clients’ demands. As the authors have shown in a previous publication [14], DT has not only had a huge impact on the primary sector (e.g. ‘Industry 4.0’) but also on consulting services.

Following the definition of Nissen, consulting research represents, on the one hand, a profound academic understanding of a phenomenon in the consulting context, and on the other, a research-driven design or enhancement of consulting services [20]. This not only means an ongoing development of the consulting as such, especially regarding technical trends and collaboration models [5] but also a role shift, as a new and extensive technical knowledge and a wide strategic scope might be required at the same time [15]. More precisely, consulting increasingly tends to become information processing. Almost all kind of consultants (change consultants, IT consultants, management consultants, etc.) are facing a technology- and information-centered focus of their action fields. Whereas business models and the responsibilities of consulting companies have been strictly separated in the past, today’s consulting projects cannot be divided into the classical slices anymore [21].

2.2 IS-Driven Business Model Innovation

Understanding and creating Business Model Innovation (BMI) is a dominant and continuous field of research for IS and business management researchers. According to Hanelt, IS has three roles in the field of BMI: (1) IS as a BMI enabler, (2) IS as a BMI capability, and (3) IS as a frame of reference for BMIs’ [10].

We will utilize the BMC by [22] as a ‘holistic structuring tool in the process of BMI’ [29]. The canvas offers a grid of key resources which a company can transform into values. The value propositions give us a more flexible view of business models, compared with classical business plans, which tend to be too finance-oriented and leave the big picture of the business model out of scope.

In this paper, we have also included Porter’s Value Chain method as one of the major perspectives into the core activities of a company. It is nothing but a high-level aggregation of all processes and functions of a company [26]. Porter showed all primary
elements of a business, from purchase to sales, as well as all supporting functions, like HR, and so forth. We intend to understand the activities of our case study partners – which are consulting companies – with regards to the Value Chain segments they treat during their consulting activities. Through this, we want to investigate whether the consulting projects in our sample fit to all parts of clients’ firms or if there are still blind spots. The combination of the BMC and the Value Chain of Porter is new, as far as our knowledge goes.

2.3 Digital Transformation as Enabler for New Business Models

DT was – due to our research – initially defined by Zhu as ‘technology-enabled innovations’ [31] within an enterprise. With the growing research on DT initiatives, the understanding of the scope, chances, and implications of DT matured. [18] put it upside down and showed how a ‘business-driven IT transformation’ could look like. This brings us closer to the point of today’s understanding and definition. DT is rather about redefining business models and creating disruptive innovations than creating incremental innovation steps [9]. Even new thoughts have been developed about leadership in the digitalized age [3], including new models of participation, company culture, and workflows. Therefore, it is crucial to understand the process-layer of what today’s IS literature includes in DT: ‘(understand and reflect on the) assumptions that shape an organization’s IS leadership practices’ [11]. This is exactly what defines the major strengths of our discipline, as we can see in the latest publications [25].

As we discovered earlier in our literature review paper, companies across all branches struggle to realize the strategic relevance of combining business-, IT- and data-driven thinking [14]. This affects the consulting business in different ways:

**DT of the consulting business.** Virtual or virtualized consulting services, sequences, modules or processes are still in their early stage, but are visible on the horizon of research on the consulting business [28] and consulting practitioners. The latter can be exemplified by new, digital, and participative forms of consulting contracting platforms like newcoventure.com or comatch.com. Both platforms go beyond freelancer-project platforms and create their business models alongside the value chain of consulting, e.g., as a partner of well-matured consulting firms to bridge the bottlenecks in their capacity with pre-tested consultants.

**DT of the consultant.** New skills and methods, as described in [19] and, e.g., agile methods, coding skills, etc. are required in the Digitalized age. Within the broad variety of role models in the consulting field [24], DT initiatives and Digitalized consulting processes ask for a new generation of consultants. The IS literature body has been discussing the skill portfolio of (IT) consultants for a couple of years [8]. Job vacancy analytics is still a common and impactful practice in consulting research [2].

**DT as a (consulting) service.** ‘Under-one-roof’ consulting, aiming at an agile, digitalized and data-driven clients’ company in future. Those consultants treat the entire
scope, including change of the clients’ business model, technical implementation and cultural change. At the same time, other consulting companies will try to continue a single-function scope [15].

In the following section 3, we will build our research method upon this literature background and the previous research questions.

3 Multiple Case Study Research Approach

3.1 Research Design and Data Gathering

Our research questions try to enlighten the ‘how’ aspects of a phenomenon in a business context. To understand the organizational frame and business environment, the case study method has been well established in IS for many years [1]. To strengthen the chain of evidence in the study, a multiple case study setting has been selected [30]. We relied on semi-structured interviews to strengthen the chain of evidence. They allow in-depth exploration and are considered as vital instrument of case research [30]. In addition to the interviews, we took field notes [23] and coded them within the qualitative research database software MAXQDA.

The process of data gathering was following these steps: selection of interview partners, interview design and structuring, piloting, interview preparation (for each partner), execution of the talk, and coding of field notes and transcripts. For the selection of possible interview partners, the authors executed a member-search for the queries {'big data', ‘digital transformation’} to get the first list of potential experts on the social network platforms Xing and LinkedIn. Further, the authors invited experts, who have spent at least two years or more in the field of DT, via a direct message. We focused on interview partners, who played an active role in Dt projects. Nine out of 57 contacts were open to be interviewed on the given topic. Each interview took between 40 and 100 minutes. To maximize the outcome of each interview, the authors prepared themselves thoroughly in advance. By using the created contact database, some basic company and interviewee information were collected. It could be enriched with public information about each interviewee’s social business network profile. Additional field research improved the author’s knowledge about the interviewees and companies. In most cases, the interviewees asked for some information in advance and welcomed the prepared interview structure and guidelines.

The talks were conducted via Skype, or telephone in some cases. In other cases, a personal meeting was possible. All interviews were recorded for further transcription process and stored digitally as raw data with field notes in MAXQDA. Thus, the final data set of each case contains contact database information, interview recordings, and field notes.
3.2 Data Analysis

We created a data analysis strategy to follow a standardized approach while handling the case material. First, the transcript and all field notes were uploaded to the case database to start with a first classification and coding phase. During this phase, we generated high-level coding clusters onto all materials [6], for instance, group clusters of strategy- or IT-focused consulting approaches, and different consulting models and approaches. This phase was followed by a more elaborate sequence of coding tactics. Finally, the cross-case analysis, e.g. or pair building, took place [7].

To strengthen the study’s validity and reliability, we followed the three principles of data collection recommended by [30]. These are 1) the use of multiple sources of evidence, 2) creation of a case study database, 3) securing and maintaining a chain of evidence. According to the first recommendation and to increase the robustness of our results through triangulation of sources [13, 30], we selected case partners with diverse perspectives. By following Yin’s second recommendation, we built a database in MAXQDA to manage audio, text, and meta-data.

4 Results

4.1 Within-Case Analysis

For multiple case studies, it became a good practice in IS research to sum up a research twofold: A within-case analysis and a cross-case analysis [4, 7, 17]. The upcoming section provides a brief introduction to each case interview and the context of its scope in the consulting project.

Table 1. Anonymized case write-ups and selected key statements.

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<th>#</th>
<th>Write-Up / Introduction</th>
<th>Key takeaway</th>
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<td>1</td>
<td>Advises enterprises on DT. To handle this, they rely internally on generalists, who can not only steer the projects on a high-level basis but also bring along field experiences.</td>
<td>‘If he (the project lead) is a generalist, he can get relatively quickly into the topic, create the concept and get somebody via his/her network.’</td>
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<td>2</td>
<td>In-house consulting unit for Big Data. An expert group of business consultants, data scientists, and architects analyzes the potential big data projects, develops predictive or prescriptive models, and implements them into the corporate IT, regardless of which part of the value chain the question arises.</td>
<td>‘When processing Big Data applications, we use an approach that originates from the CRISP-DM method. (…) It essentially describes an iterative approach model, extremely agile, from business understanding, data understanding, data preparation, modeling, and evaluation.’</td>
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<tr>
<td># Write-Up / Introduction</td>
<td>Key takeaway</td>
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<td>3 One of the so-called big four leading consulting companies in the world; tackles DT from a general approach.</td>
<td>‘Although companies might do the same, they can’t do it anymore in the same way’</td>
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<td>4 Freelance consultant. Advises clients regarding DT and project incident management independently. Consulting skills and processes must include classic and agile project management (like scrum), as well as software Kanban, lean start-up, and especially, the idea of the minimal viable product.</td>
<td>‘My hypothesis is that those projects do not fail because the project content is technically too complicated but because of the project organization. That is, the structure of the project, as well as its processes, is designed in a very complex manner.’</td>
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<td>5 Consulting start-up and a hybrid of consulting and software services, looking at other software engineers’ output with big data technologies and – in this way – digitalizing the coding, debugging, and code optimization process.</td>
<td>‘The machine tells you what the problems are and, partly, also which solutions are available. These information are transferred to our consultants.’</td>
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<td>6 As one of the trendiest apps for finding meaningful and well-matching presents in the German market, it is a completely digitalized and algorithm-driven (i.e., automated) company, well experienced in cooperation with consulting partners.</td>
<td>‘Digital is the new normal.’</td>
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<td>7 Technology plays a major role regarding hard- and software, facing a new trend regarding the business counterpart at the client’s side.</td>
<td>‘(…) multidisciplinary teams are the most successful ones.’</td>
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<td>8 Focusing on strategy, technology, and outsourcing services, this consulting company represents a technology-oriented consulting firm. The big data business unit belongs to the technology consulting part. IT consultants faced a shift to the role of change agents over the last years, even if many elements have always been a part of it.</td>
<td>‘(…) it is actually a threefold specialist role, which is then rather a generalist. (…) I do play the roles of the project leader, the architect, or the consultant in the projects. In this respect, it is more generalistic. But I believe that to be able to drive this triple course, the computer science study was essential.’</td>
<td></td>
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<td>9 Historically, this consulting firm is a classical IT consulting company with different services, such as system development and integration, big data, training, and many more aspects of DT. Nowadays, innovation and trend topics are covered with internal resources.</td>
<td>‘The classical strategy consultants either have to orientate themselves more technologically (…) or classical IT consultants get involved in strategy consulting aspects’</td>
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4.2 Cross-Case Analysis

Next, we intend to create a combined view of the cases presented in the previous section. For this, we will first classify the Value Chain – equivalent of every consulting firm’s project focus. Second, we cluster the interview answers in the logic of the BMC. Finally, this section ends up with a belief-outcome-model of the subject.

**Value Chain Perspective.** Porter’s Value Chain provides an aggregate picture of all processes and functions in a company, from purchase to sales, including all supporting activities in a firm. A major step in the analysis is matching the elements in the value chain that the interviewed companies are or were working on. Besides, the authors brought the value chain aspect of the case partners together with the consulting typology. We offer a two-dimensional view into our data, based on a classification of our case partners. Table 2 shows, on the one hand, that four of our interview partners focus entirely on all functions of their clients. On the other hand, we find a wide spread of (maybe) specialized or focused consulting activities. We will discuss and interpret this spread in the next section. Obviously, human resources have been an untreated environment for our interview partners so far. In total, we can sum up that the – as Porter defines it – primary activities of a company are a much more integral part of the interviewed consulting firms compared with the supporting functions.

**Table 2. Value Chain matches in the coding structure.**

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<th>Primary Activities</th>
<th>Support Activities</th>
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<tbody>
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<td></td>
<td>Inbound Logistics</td>
<td>Operations</td>
</tr>
<tr>
<td>Strategy</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Organization Development</td>
<td>1 1 1 2 1 1</td>
<td>1</td>
</tr>
<tr>
<td>IT (oriented)</td>
<td>1 1 2 1 3 1 3</td>
<td>3</td>
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**Business Model Canvas.** Next, we used the BMC to cluster our codings in a way which can deliver clear impulses for consulting firms. Figure 1 follows the original grid view of the BMC and summarizes our derived business model impacts.
Customer segments. We see possible new customer segments for consulting firms. At the end of the scale, there are established corporates with a strong need for digitalization support. Important here is, that the historical customer differs from today’s customer, for instance, because of the user-chooser-aspect in the context of big data systems (Case 7). At the other end, there are digital business models in the recently founded start-up companies, which have other demands than aspects of digitalization (Case 6: ‘Digital is the new normal’).

Customer relationship management. New relationships between client and consultants will come up. Especially in the era of Web 2.0 and the forthcoming co-creation of products, brands and services are an important example of modern creation processes [16]. Further, highly committed and experience-driven experts will form future relationships in this context, as Roßmann in case 8 points out: ‘We recognize that you don’t get accepted by the client when you are just certified, but you can’t say I did this in a couple of projects in different roles.’ Of course, experience is also today a fundamental factor for the qualification of consultants. What the authors see and mean as a significant differentiation here is the fact that those new businesses we are discussing in this context might lack already experienced experts. In contrast, this offers new business opportunities for founders who move on after an exit.

Channels: On- and off-site consulting activities – like remote work for preparation and research on the one hand, and sessions physically taking place at the clients’ facilities on the other – are not new concepts. Both will change. Consultants might cooperate with external or internal experts for complex technical solutions or rapid prototyping, for instance, as also suggested by [29]. As case 3 underlines, the scope of consulting companies correlates with the maturity level of the market. The vertical range of manufacturing might differ from consulting firm to consulting firm but it will definitely
include digital solutions and services [15]. Another aspect is the kind of format that consultants offer to their clients: Old-fashioned workshops and impulse speeches will disappear. New, innovative, and meaningful – as case 1 underlines, ‘a whole bandwidth’ – formats have to deliver clear results [3].

**Value propositions.** The differentiator that a more successful consulting company offers will primarily need added value beyond strategic recommendations, i.e. the ability to break strategic scopes down to a technical level in the customer context of their consultants, as mentioned in Case 9: ‘(…) we have to consider more, what digitalization does mean for corporate strategy’. The Lean Start Up method and thereof the Minimal Viable Product by [27] might be techniques that will become important for this purpose, as Case 4 points out: ‘those (methods) must be available and connected to each other’. Another aspect is that those deliverables have to be co-created with the client. Lastly, rapid and early prototyping capabilities will matter for consulting companies (again Case 9: ‘(…) less optimizer, but more involved into the innovation process’) as well to make a difference: Concepts need to be prototyped and iterated with customers in high frequency. What is needed here is an in-house full-stack development team in consulting companies [12].

**Key activities.** The mentioned value propositions go hand in hand with the needed key activities for consulting firms. On a high-level basis, they will still be eager to facilitate change – as especially seen in Case 4, ‘therefore we cooperate with organizational psychologists’ and in [15]. However, in detail, this means creating a true and honest environment for corporate entrepreneurship and ideation, again Case 4: ‘(…) I have to deliver my product very fast and therefore I need to know how to test (…)’.

**Key resources and key partners.** We put both categories together because we still see a lot of room for decision-making here for the consulting companies. Nevertheless, the core of what has to be delivered remains the same. Prototyping and implementation of – at least partly – digital ideas require development skills of different kinds, as mentioned in Case 9: ‘The (consulting) teams won’t get necessarily bigger but the skill-set will change’. It could be app development, algorithm optimization for (big) data problems, backend and cloud challenges, summarized by a take-away from Case 6: ‘(…) multidisciplinary teams are the most successful ones’. In many situations, consulting teams might consist of network partners, to cover the skill spread, as seen in Case 1 for instance. We see the majority of problems affecting this.

**Cost structure.** Besides today’s major investments in terms of employees, consulting companies face the need for stronger contractor/freelancer network, as Case 1 pointed out: ‘(…) do the concept and get the expert via your network’. Additionally, the technical infrastructure to develop and deploy the above-mentioned value propositions has to be installed and maintained, as Case 8 made clear: ‘(…) I got internal budget (…) and run our own server-cluster’.

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Revenue streams. Due to sensitivity, we regret to have no case-base information regarding current consulting fee models. Nevertheless, with new methods and business opportunities, new payment models for consultants might also come up. As coders already manage it today, consultants, by generating new ideas and by founding new companies with the client, could become shareholders of those ideas. This would also encourage the shift from traditionally higher paid strategy-consultants, compared to IT-driven consultants [21] and be a logical step, as future consultants treat both strategic and IT/data-related questions.

Explanatory Model. So far, this paper presented visible changes in the consulting organizations. With an belief-action-outcome framework (BAO) based on [17], we want to summarize our codings with respect to the underlying roots of that change. The model shows the (macro) beliefs, which we tagged within the interviews, leading to (micro) beliefs within the organization. The actions describe management approaches and operational steps, which have been clustered here as main action steps of DT. Finally, externally visible artefacts form the Digitalized outcome on a macro-level.

![Explanatory model of Digital Transformation.](image)

5 Discussion and Conclusion

5.1 Scientific and Managerial Implications

Our paper should enhance the ongoing academic discussion about the scope, possibilities, and future research of digitalization within consulting. We created three artefacts: First, a process-oriented view onto today’s digital transformation projects based on Porter’s value chain. Second, a belief-outcome-model of consulting initiatives in the digital era and third, a BMC with important aspects for state of the art consulting toolboxes.

The findings of our paper have a number of important implications for future consulting practice: New working methods, like agile project management, rapid prototyping and so forth are becoming a building block of consultants’ work. This will affect the scope of projects (end-to-end), skills of the consultants (or the team setup) and the cost-revenue-structure of the project controlling.
5.2 Conclusion, Limitations and Outlook

Consulting research and practice transforms in many consulting fields to a digital innovation business, as – truly not all, but many – startups and business enhancements are based on digital solutions. Consulting researchers might offer more tools and frameworks for practical toolboxes, as shown in our BMC, to tackle this development.

Like every research, our paper was limited by different factors which might be tackled in our and others future research: As many agencies and innovation labs are creating digital products for enterprises today, these suppliers should be included in such a case study in future. Further, the companies we selected were based in Europe only. A global perspective onto the phenomena would be recommendable for a future setup.

References