

On the Effect of Digital Frontstores on Transforming Business Models

Concept and Use-case from the Consulting Industry

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Abstract: Digitization has been changing society and economy enormously for the last 15 years. Surprisingly, consulting, though acting as a key driver in the digitization of other branches, was not subject of any significant changes. The consulting process is still merely supported by ICT technologies. We develop a digital frontstore approach to easily enable digitization of consulting. This approach focuses on the interaction of consultancies with their customers and the support of those using digital technologies, especially ecommerce systems. Such a store requires to transparently and modularly offer consulting services, which is opposed to the current sales model of most consultancies. Hence, we discuss in this paper inherent implications of digitized consulting services on the business model of consulting. In order to assess our findings, we present the actual implementation of an electronic consulting store as initial design artefact. We used this artefact to evaluate our understanding of a digital consulting frontstore. This allows us to conclude our work with a summary of an expert panel reviewing our conceptual findings.

1 INTRODUCTION

Digitization has changed our age. In the last 15 years, it has become the major trend for transforming societal and business life (Kappelmann et al., 2014; Von dem Esche and Hennig-Thurau, 2014; Leimeister et al., 2014; Cocorocchia et al., 2016). In this respect, *digitization* means the transformation of products and services that have been originally produced and provided in the real world into computer- and Internet-based services. However, it is not a one-fits-all solution. Each business has to conceive its own approach of their digitization (Veit et al., 2014). This is also - and above all - valid for ICT industry that has been enabling or catalyzing digitization (Sabbagh et al., 2012). Especially those “digital factories” are at risk to be easily surpassed by more digitized competitors. The same applies to the consulting industry that overlaps with ICT industry (Zhou and Muller, 2003). Many consulting companies have profited from digitization for years. They initiated the projects, fostered and propagated them, they were steering and managing them, but they are nevertheless neglecting self-digitization. Smartphones and Excel Sheets are established tools in the consulting domain. But digital software solutions supporting and improving the consult-

ing processes itself are missing putting consulting companies at high risk. They may lose market shares to challenging competitors with novel, digital consulting approaches.

As in the case of ICT enterprises the risk arises primarily by actual success: After the first consulting firms were founded about 100 years ago, consulting industry has been constantly growing (McKenna, 2010). Even though the mergers and acquisitions we have seen in the last years just demonstrates that the market has become mature, there is still an increase in market volume. But maturity implies at the same time that consulting has become a commodity. Looking into digitization development, especially those commodity services are affected, transformed and replaced by new digital business models (Friedrich et al., 2013). To be on top of this development it is highly necessary for challengers and established companies to reveal and realize the potentials and effects of digitized consulting.

Therefore our work contributes to this research field by analyzing and introducing such a potential - the digital frontstore approach - that enables the digitization of consulting service processes.

To introduce the approach we first present our understanding of digitization of consulting - especially

by considering requirements - in the context of already existing solutions for digitized services. Afterwards, we use those insights to develop an initial design artifact of the digital frontstore approach, a lightweight transformation for digital consulting offerings. Analyzing this approach, we can assess inherent implications for the business model of consultancies based on the well-established business model canvas. Our work is concluded by presenting the eConsulting Store prototype as the result of a first design and implementation cycle, followed by discussion with an expert panel with regards to possible implications of our approach to the traditional business model of consultancies.

2 DIGITIZATION OF CONSULTING

Digitization of services has become the standard: In all kind of domains there are efforts to transform conventional services into digital ones (Cocorocchia et al., 2016). This affects retail in the same way as it affects banking and other industries. Thereby, not all services possess the same potential for a digital transformation. With hairdressing – a common example – only the front end part of the process can be digitized: Finding the right hairdresser, fixing an appointment, booking the service and paying it, all this can be operated through the Internet. And there are companies and platforms using such approaches already (e.g. *salonselect.com.au*, *mylocalsalon.com.au*). But the original service provision, the cutting, is and will remain a manual, physical activity that obviously cannot be digitized. In that respect immaterial services are easier targets for digitization since material services will never be completely digitizable. Consequently, services have to satisfy special requirements in order to be digitizable (Greff and Werth, 2015) since they must be – at least partially – transformable into a software solution. Thus, digitizability implies applicability. Consequently, we define digital services objective-based as those services that were originally rendered analogously, but are made more efficient and effective by using ICT. In our context, this holds in particular for digitized consulting

Since personnel costs typically present the largest cost item in consulting business, the standard approach for digitization is to reduce manpower or increase usage of IT (Taherdoost et al., 2013). Ideally, both effects can be combined, although in many cases a human being is only finitely replaceable by ICT. Still in these cases, digitization may help to transfer

processes from the company site to the client site via a proper interface (Werth et al., 2016). Accordingly, staffing requirements and customer contributions are key components to evaluate digital services. This insight enables us to better and more accurately classify digital services, see Fig. 1 (Taherdoost et al., 2013).

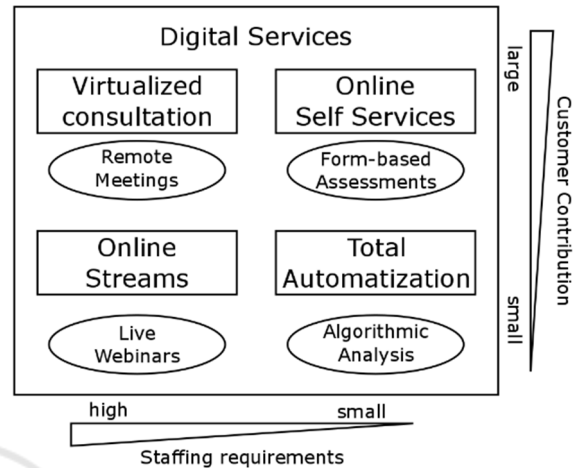


Figure 1: Classification of Services, after (Taherdoost et al., 2013).

This classification also shows, that different technologies are suited to support digital services depending on the quadrant. Consequently, there is no universal technology available for digitized consulting, but a proper implementation is required for every characteristic. They can be coarsely distinguished as given below:

1. *Computer Supported Consulting (CSC)*: Software tools are used to support single tasks of a consultant, while the tools themselves are domain neutral. Only the way they are used provides an added value to the consulting itself. Typical examples are electronic data processing tools.
2. *Computer Assisted Consulting (CAC)*: It incorporates tools developed specifically for consulting economy, supporting specific tasks of this branch.
3. *Computer Controlled Consulting (CCC)*: It extends CAC. Instead of supporting single tasks, a CCC-system assists in rendering the consulting service as a whole. As a key difference, note that such a system focuses on processes rather than supporting specific functions, as it is the case for a CAC-system.
4. *Computer Executed Consulting (CEC)*: CEC aims at completely replacing the consultant. Services originally rendered by the consultant are in this case undertaken by a software platform. The consulting itself is not anymore assisted, but as much

as possible provided by the software. Examples could be automatized audits, as proposed for Self-Service Consulting.

Not all known consulting services can be supported or replaced by any class more sophisticated than CSC, hence current approaches typically focus on electronic data processing tools. It is thus necessary to identify conditions, under which a service can profit from CAC, CCC or CEC towards further digitization. The requirements of standardization, modularization, customization, integration, customer-services and socialization are to be met for a service to be digitized (Greff and Werth, 2015).

A well-known and established example for CAC digitization in consulting is *Quantifye*, which allows to order various consulting services. Here, the potential customer first describes his problems, after which a consultant is assigned to the project based on skills, location and availability. This way, *Quantifye* focuses on mediation of consultants, which prevents the possibility to offer consulting on a small scale directly via the platform itself. Additionally, only the first steps of the consulting process, namely project description and assignment of a consultant are captured by the consultant. *Hillgate* has a similar approach.

A vendor that goes further with a CCC solution is *clarity.fm*, offering a dashboard to chat or talk to a possible consultant. After a consultation, billing is automatically processed on a minutely rate, yet *clarity.fm* does not incorporate customer-site consulting. As our discussions with experts revealed, customers still want the ability to book on-site consulting, as we present in the last section. In addition, the focus of platforms like *clarity.fm* lies on start-ups rather than offering consulting services at any scale.

McKinsey Solutions captures a totally different part of the process and is considered to be one of the most disruptive innovations in consulting so far (Moreau, 2013). Unlike the platforms discussed above, it is a Software as a Service solution that concentrates on providing a broad range of data analysis, processing and presentation tools. As it supports specific consulting tasks it is an additional example for a CAC solution. Yet *McKinsey Solutions* lacks the ability to initiate the consulting process.

Other potential applications of digitized consulting would be remote consulting, for example webinars or video calls. Here, a complete digitization would give rise to more automatization of business

and consulting processes, thus reducing need of personnel and making the consulting service itself more efficient. But the digitization of consulting requires initially changes to the classical web presence of companies, which we discuss in the next section.

3 THE DIGITAL FRONTSTORE APPROACH

Classical online stores like Amazon or iTunes offer either material goods or data including software and content. If such a shop enables a customer to search and buy a product, which is eventually shipped afterwards, the complete purchase process is already captured. A consulting service has a much more complex purchase process, hence requiring a more complex store solution. Therefore we need to clearly define first, how a consulting service is executed from a procedural perspective, see Fig. 2. Broadly speaking, it already starts when a project is specified: A potential customer must align his/her problem with the available portfolio of competences. Afterwards, a consultant must be associated, who has skills matching the project's requirements. In the next two steps, a concept must be developed, evaluated and implemented. The consulting service is completed by evaluation and billing. Each of these steps involves sub-processes that depend on the branch of the actual consulting service, e.g. sales consulting, business consulting or IT consulting. Hence, we do not discuss these sub-processes here in detail. However, it is clear that a solution is needed that can be involved in all major processes above.

If we compare actual websites of consulting companies, they typically lead to a contact form by which a potential customer might only initiate a consulting process. Other than that, several platforms act as mediators between interested clients and freelancer consultants, as we discussed above.

Neither the mediator platforms nor the websites of consultancies are covering the complete consulting process. To get a holistic approach fulfilling this criterion we introduce the digital frontstore (DFS) approach. A DFS is at least a CCC solution, optionally extended by CEC services.

A DFS must allow a customer to search and book services whereas the vendor must be able to combine

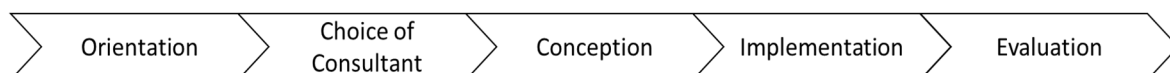


Figure 2: Generic Consulting Process, after (Block and Markowitz, 2000).

and customize services. After booking, services provision must be handled by the frontstore. This handling extends until the service is evaluated after completion. Consequently, we conclude that a DFS must support the following functions:

1. *Electronic Alter-ego*: Both customers and consultants must be represented via electronic alter-egos. This way, the communication between the two parties is digitized and rendered by the platform.
2. *Listing of Product Portfolio*: A potential customer should be able to see all available products offered. In addition, consultants should have the possibility to add services and assign them to their portfolio.
3. *Shopping*: While a customer looks for a service, s/he must first of all filter the portfolio. By the reason of complexity s/he may need support of sales consulting, which must be accessible online, for example via a video call functionality. As soon as a customer has decided to book a service, the DFS offers the possibility to add services to a shopping cart. From this shopping cart, the customer can either check-out immediately or request a quote, especially if s/he books several services.
4. *Payment*: The payment process of the DFS is more complex than for classical online stores. It is typically not the person booking the service, who later has to pay, but rather the financial department of a company. Therefore, the customer must be associated with a company, and billing is finished in contact with the company directly. In addition, for services offered at a minutely rate, payment can only be initiated after service provisioning.
5. *Support of Fulfillment*: Consultants typically render their service in contact with numerous people on customer-side. Henceforth arises the necessity to associate employees of the same company with a booked digital service. In addition, times must be scheduled, eventually with a large team of employees, so the DFS must allow scheduling as well as supporting the fulfillment of a task - especially for those consulting services that are performed in a digitizable way, e.g. calls or webinars. A DFS can even incorporate the whole fulfillment process by offering remote call technology.

The implementation of the listed functions has direct effects on the classical consulting processes. Primarily changes affect sales, scheduling and fulfillment processes (Werth et al., 2016). However within the scope of this paper, we neglect those operational impact of the DFS. Rather we concentrate on the ques-

tion how it affects the business model of a consultancy.

4 EFFECTS ON THE BUSINESS MODEL

Introducing a DFS as described above at first sight only seems to add another channel for sales and customer interaction. Instead of the sales representative, now the customer itself uses the store to select and purchase the consulting services. However, this actually neglects the effects of this new approach on the business model of a consulting company. In this context, a business model is "the business logic of an underlying company by a combination of interdependent offering, market, internal as well as economical business model components in a static and dynamic way beyond the company's borders" (Burkhart et al., 2011). By selecting this definition we focus on the value creation of a business model. Digitization in particular implies effects on the value creation (Methlie, 2000; Weill and Woerner, 2013; Johnson et al., 2008; Moreau, 2013). The identification of the effects in case of the DFS shows the real added values, justifying the DFS approach in particular and digitization in the consulting domain in general.

Effect 1: The Long Tail A common and often referenced effect of an e-shop solution is the long tail (Oestreicher-Singer and Sundararajan, 2012; Elberse 2008). Amazon as a well-known example highly profited from this effect (Elberse, 2008). It mainly means the improved possibilities to offer products and services that are sold rarely. The positive effect on the value creation results from the mass of such products, that individually are not producing high sales volume, but the pure mass of them provokes significant revenues. In our context, this means that consultancies may offer a large variety of modular services, reflecting their actual skill portfolio, as an extended offering. It enlarges the limited offerings which sales consultants usually present in on site customer appointments. This is in line with the second effect:

Effect 2: Explicit Offering Consultancies usually offer a wide range of problem solving competencies. Similar individual consultants rather present themselves as capable of solving any problem in their area of expertise. The scoping and detailing of the consulting activities is discussed and negotiated within bilateral meetings with customers. However, this procedure is rather less compatible with the functioning of an online store. The catalogue structure of such a

store requires the definition of the products (and services) to be included in the catalogues. In this respect, it becomes mandatory for consultancies to switch from a “we solve everything” into an explicit offering approach. They need to specify precisely what consulting services they offer, how they are fulfilled and how much effort this requires.

Effect 3: Price Transparency This effect also results from the catalogue nature of an online store.

All services are offered at a fixed price and can be easily compared by potential customers in contrast to the current model of consultancies to only provide request forms and not publically revealing prices. Thus, this comparability already changed the pricing systems of several industrial branches and gave rise to comparison platforms (Weinhardt et al., 2009; Klein and Bhagat, 2010) and may even more affect consultancies since their pricing model heavily relies on competitors’ prices (Iveroth et al., 2013).

Effect 4: Pre- and Post-consultancy Automation

Online stores change the sales processes and concepts of consultancies. They benefit from the fact that the sales cycle is reduced tremendously, since the time to set up an offer is negligible. The customer itself browses through the service portfolio and selects appropriate consultancies. But the automation (from the point of view of the consulting company) is not limited to the sales process. Also other auxiliary tasks can be executed electronically without human intervention. Examples are the determination of appointments, or the invoicing. In this situation, the online store can incorporate the complete pre- and post-consulting process, not only saving time but also increase comfort for customers and consultants via its increased flexibility, a one-fits-all interface and extended reachability. Consultants and specific consults can be searched online at any time, independent of specific business hours.

Effect 5: Micro Consultancy The introduction of an electronic channel for purchasing consultancy services can change the way how pre- and post-consulting is processed. But can it also change the consulting services itself? It has already been revealed that remote consulting can be offered at significantly lower prices than on-site consulting (Oracle) High wages in consulting are typically a result of the large amount of time spent on and the employees’ willingness for travelling. But the consequences of removing travel costs and automating pre-and post-processing efforts are going farther: The overhang of a consulting service can be reduced enormously. When a consultant does not need to travel to the customer and if the sales and invoicing costs are marginal, there is no need to just sell long time periods to the same customer. Even

providing hour-wise consultancies now becomes economically possible. Moreover, the role model of consultants changes from spatial reachability towards temporal reachability.

Effect 6: Standardized Services In addition to the effects already mentioned, it would be possible to just push the existing consulting offerings to the eshop. However, this would not result in the desired objectives. E.g. there is an inherent risk if offering fixed price services without being clear in the operations. Therefore, in order to catalogue the offered services, there is a minimal requirement of standardization regarding the types of services offered, the description of the actual service and how fulfillment is done (Gottschalk et al., 2002).

Effect 7: Modular Consulting Incorporating those effects leads to new options in the design of consulting services. Having a larger portfolio of specific and standardized consulting services, companies can use those to combine them and bundle them into new offerings. In the same way, existing services can be reviewed and transformed in a way that they (at least partially) are composed by other, smaller components. Finally, this results in a modular design of consulting services. And this effect is not limited to their own services: Consulting companies can easily augment their service portfolios by offering or bundling additional products or services provided by third parties along with the consulting services, for example guides or software packages.

In order to provide a more structured view on the influence of the DFS on consultancies’ business model, we use the business model canvas (Osterwalder and Pigneur, 2013). This scheme decomposes business models in individual areas of concerns. Even if those areas are not fully independent (Krumeich et al., 2013) it enables a depicted analysis of the factors which are affected by the DFS. The resulting canvas is shown in Fig. 3. It contains the effects mentioned above and the consequences derived from the conditions of a DFS. For example software and hardware as resourcesE2. It is remarkable that all sectors of the canvas undergo an adaptation due to the DFS. This reflects the significant impact of the approach on the business model of a consulting company.

5 THE ECONSULTING STORE USE CASE

The concept of the digital frontstore approach developed above was implemented as a prototype called










Key Partner  0 not visible on platform 0 sub partner network in the backend	Key Activities  + integration to a holistic approach + platform built + hybridization with classical business	Value Proposition  + explicit offering (E2 & 6) + extended portfolio (E1) + price transparency (E3) + cost efficiency (E4 & 5) + micro consulting (E5) → time independency + reachability (E2) + modularity (E7)	Customer Relationships  + remote assistance + self services + automated services + virtual organization 0 co-creation	Customer Segments  Diversified customers: + customers willing to use web-based services + efficiency oriented mass market (E1) 0 existing customers with framework contracts
	Key Resources  + software + hardware + standardized service (E6) catalogue / modularity - human resources		Channels  + webchannel: purchase, scheduling, fulfillment, sales consulting (E4)	
Cost structure  + IT costs / SEO optimization - travel expenses - personnel cost		Revenue Streams  + fixed-price consulting services + small scaled consulting + upselling + reduced sales cycle		

Figure 3: Effects of the frontstore approach on the consulting business model classified by business model canvas. (“+”/”-“: increase/decrease of the respective item, “0”: item unaffected).

eConsulting Store (ECS) together with the consulting company Scheer GmbH. Implementing all requirements of the DFS would require a large complexity, making it more expedient in the short term to evolutionary digitize single stages of the consulting process. The resulting modular solutions may be merged later into a complete DFS. This must be kept in mind during the initial design cycle. Hence, we focus here on designing a quickly applicable solution providing an entry point to digital consulting.

The prototype was implemented and customized for the company specific IT Consulting Services. The respective business unit provides consulting services for a specific software family. The offered consulting services are characterized by their close relation to this specific software and its structured rollout, customization and usage. We could henceforth assume, that a digitization of the consulting service is principally possible, since no spatial or functional binding of that consulting services exists. As the offered consulting services aim at IT-based solutions, we could also assume an optimal willingness of potential customers to work with new technologies, which is the reason why we chose this business field for a prototypic implementation.

After verifying suitability we identified needs in this field in form of a use case. We found that custom-

ers in particular demand internet-based booking, processing and billing of two different consulting services. The first one being workshops, classified as one-to-many services. The second one are modular one-to-one consulting services. In both situations, the client must be able to buy and process the service remotely. As an example for such a one-to-many consulting workshop we consider the “BPA workshop”-offering of the consulting company. Here, all of the customer’s current BPA- and BPM-activities are determined within four days and possible opportunities of optimization are evaluated. As an instance for one-to-one consulting services we reference to complex live business model development and modelling assistance with business process tools.

As a proof of concept, we implemented the ECS in the domain of those IT Consulting Services based on the open source webstore Magento. Our choice was governed by accessibility of the source code, variability of available plugins, customizability and general extensibility by individually developed modules. A first result was a customer oriented architecture of the eConsulting Store that mainly consists of two components (see Fig. 4). The frontend essentially handles purchases while the backend bundles the organizational process surrounding consulting services. A user management needs to span both components, since user registration and verification is required,

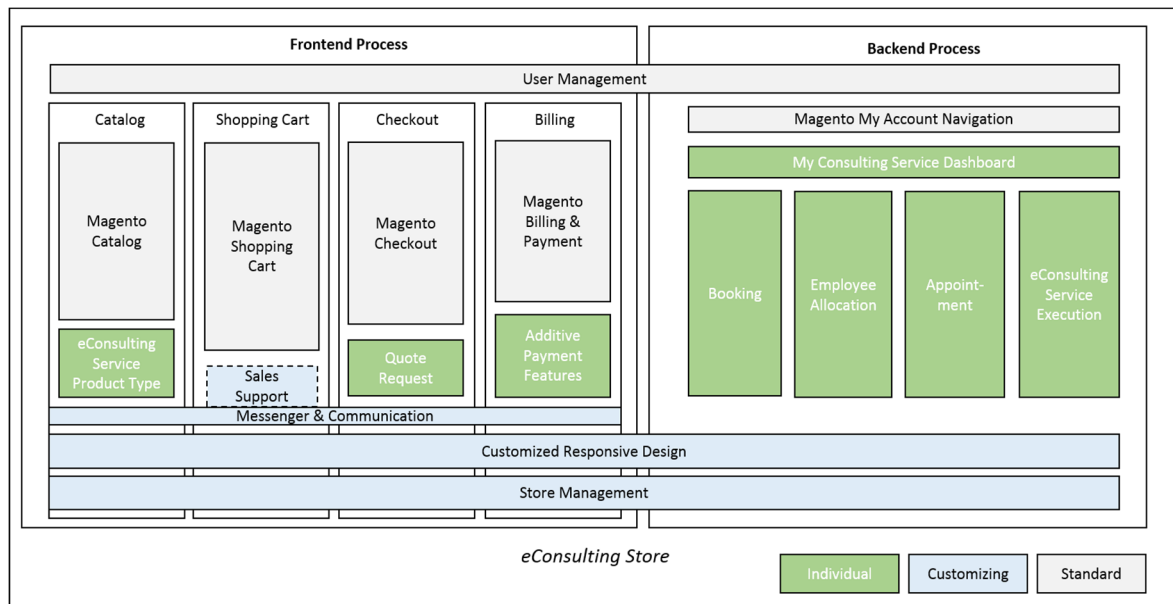


Figure 4: eConsultingStore architecture.

Responsive Design is implemented to assure presentation of the store independent of the user's device. In addition to client-oriented components, we have an administrative Store Management, as an interface to the provider to update offers and adapt the store in detail.

We provide the details of the prototype by the typical use-cases mentioned above, namely a customer searching, ordering and scheduling a consulting service - be it a workshop or a one-to-one consulting service - as well as fulfillment and after-sales services.

At first, a potential customer sees the home page of the web store, explaining the concept of the store. From here, s/he can navigate via the menu bar to a browse-functionality, where the customer can either browse through all available services or search for a specific service by keywords. From the overview, the client can request detailed information about specific services by simply clicking on the product of interest. From the detail-view, the customer can now add a service, including the volume of services needed, to his shopping cart. If customers are unsure about which products suit their individual needs, they may request an online sales consulting via a live chat function. Besides standard functionality of a shopping cart like removing items and checking out, we set up a function to request a discount, if for example several instances of the same product are purchased.

If a customer decides to buy a service directly, the buying process is invoked, during which s/he may choose the preferred method of payment. Besides classical payment methods like credit card payment,

we allow the customer to be associated with the financial department of a company. Often it is not the actual customer booking the service, who later pays the bill, but rather the respective employer.

If now the cart is checked out, a database object is generated on server-side. All earlier bookings can be accessed by shop administrators through a dashboard. Nonetheless, the billing process is started automatically after the purchase is finished.

A customer may access the booked and payed services via a GUI. Here, s/he can schedule services, for example in the case of a call. Additionally, s/he can associate other users of the same company with a service, for example by inviting them to a webinar.

If we now look at the ECS, we find that it matches most criteria of a digital frontstore that is able to perform digital consulting services. Orientation, selection, conception, and evaluation are fully implemented. Only the implementation is not fully available, since the service itself is in most cases still performed outside the scope of the platform. Although hybridization is part of the platform the choice for on-site or remote consulting should lie on the side of customer. Therefore, this is going to be part of our future work.

6 EXPERT REVIEW

During the initial stage of the ECS, we collected opinions on changes and effects of a DFS on consulting processes during roadshows, talks, conferences and

conceptual stakeholder meetings. As a majority, these opinions reflect biased positions of the involved roles, containing statements by experts as well as directly affected people. The opinions are sorted by five aspects, representing compact catchwords for a specific change caused by digital consulting. We found that the experts in general agreed with our expectations as discussed in section 4. In addition, our experts brought forward the following aspects:

1. *Spatial Independency*: “The customer must always be able to choose between remote or on-side consulting.” “A success of remote-consulting depends on comprehensible win-win situations.” Examples here are significant discounts based on savings in travel costs. “A sustainable model could incorporate hybrid types in the context of a consulting project. A first get-together on client-side followed by remote-consulting.”
2. *Small Scaling*: This means, that the ECS can offer smaller consulting units in the context of duration and extent. “This allows to even reach small markets.” But not all of these markets are profitable. “Addressing a broader customer base, for example by internationalization, is therefore considered a necessity.” According to consultants’ opinions, a smallest subunit is still inevitable. Two or three topics a day are considered to be the maximum. “Changing topics too quickly is considered to endanger the consultant’s focus.” Disadvantages are expected by losing a negotiating basis and enable comparability with competitors.
3. *Reachability*: This is a surplus value especially for customers. New digital and existing bookable consulting services are permanently viewable and reachable. Consulting becomes a multi-channel offer. “If every channel here comprises an added value is hard to estimate.” “Synergies for sure add value, but also the risk to neglect essential channels.” “Digital consulting does not assure the contact to a specific consultant, but it needs to be guaranteed that a consultant with equivalent skills is available remotely or locally.” The fact the recipient of a consulting service is different from the buyer is considered to inhibit the reachability and usage of digital channels.
4. *Analyzability*: “Digital consulting promises a large data analysis potential by CRM, structured collection of feedbacks and even predictive analytics for customer needs.” In particular, this allows automatized refinement and presentation of success stories. In it highly controversial but often assumed, that “analyzability by digital consulting comprises security for the company, since con-

tacts and projects are less cross-linked and undergo smaller fluctuations.” The largest concern in the context of analyzability is “inhibition due to doubts about data security.”

5. *Reusability*: “Tools from digital consulting support consulting processes today – and will do so in the future – in different hybrid forms wherever and whenever redundancies are evitable.” Webinars are an example of a product that can be consumed several times or the construction of a knowledge management system, assuring long-term preservation and usage of knowledge. “Especially training of new employees or exchange of knowledge within a company offer large potentials.” A problem of reusability is of course the need for a copy protection.
6. *Scalability*: With this we think of reaching arbitrarily many customers with appropriate effort. A concise example is that of a “remote consulting by one consultant, rendering his service to hundreds, if not thousands, of customers.” “This would be a fair model for trade show consulting, but personal consulting is hard to imagine due to a large variety of individual aspects.” Rather than that, the idea is to make the business model of digital consulting scalable. Digital consulting should offer the optimal mediation of consultants. “Mediation as a service can be arbitrarily scaled.” “Computer-assisted networks, incorporation of freelancers and generation of a broad employee base by breaking-up traditional business structures are essential driving forces of this idea.” A concern here is mediating credibility. In addition, digital mass consulting comes with a comparability that is considered to be critical.

7 CONCLUSION

In this work, we introduced a digital frontstore approach for consulting services. Using a business model canvas, we identified impacts on the business model of consultancies and found that a DFS mainly affects all components of a consultancy’s business model. We provide as a first design principle the eConsulting store, allowing us to discuss the DFS approach with an expert panel.

Since the ECS is the result of a first design cycle, future work is going to include implementation of further functions of the DFS, as discussed in section 3. In addition, future theories and prototypes should take into account the results of our expert panel.

It will be interesting to match our expectations on

how a DFS may affect the business model of consultancies with its actual impact on the business model of consultancies, as soon as a full DFS solution is available.

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