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# PUTTING VALUE CO-CREATION INTO PRACTICE: A CASE FOR ADVISORY SUPPORT

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## Abstract

*The concept of value co-creation and its notion of the customer as co-creator of value have gained much academic interest, notably in marketing and operations research. While several competing perspectives have been conceptually discussed in literature, research on the practical implications of value co-creation is scarce. Using the example of sales-oriented advisory, we show gaps between existing co-creation concepts and current practice in five problem areas. We develop four general solution perspectives on the advisor-client encounter as guidelines to overcome these gaps and discuss design requirements of their technological instantiations in advisory support systems. We present exemplary implementations of such systems in two domains: travel counseling and financial advisory. Revealing the practical implications of value co-creation on advisory encounters, these examples also demonstrate that the solution perspectives have to be implemented quite differently for individual domains.*

*Keywords: co-creation, collaboration, advisory, design research.*

# 1      Introduction

The concept of value co-creation and its notion of the customer as co-creator of value have gained much academic interest, notably in marketing and operations research. The underlying logic argues that value is not embedded in a firm's output but defined by and co-created with the customer – the firm may only offer value propositions that must be determined and co-created by their clients. In the literature, there has been an emphasis on the implications on exchange roles in economic organization and the relationship between the client and the firm (Vargo & Lusch 2004, Prahalad & Ramaswamy 2004, Vargo et al. 2008). While these discussions support the understanding of a closer firm-client relationship, concrete directions and suggestions on how to enable co-creation of value are lacking. In Information Systems research, on the other hand, collaborative work has been investigated in terms of technologically mediated interaction and cooperation. We argue that such interaction and cooperation is at heart of value co-creation and may inform the design and support of firm-client encounters.

In this paper, we attempt to further narrow the gap between the rather abstract concepts of value co-creation and the concrete directions of Information Systems research on collaborative work. To this end, we present four general solution perspectives on how to put co-creation into practice, i.e., how to design service encounters and their technological support. Since they are prime examples of co-creative service encounters, we will base our discussion on sales-oriented advisory services. Their main goals being the configuration of products or services, we find that co-production or co-creation has always been a fundamental premise of service performance. Firms, however, have been focusing on the output of such processes rather than the service encounter itself. Taking a co-creation perspective, as we will argue, could allow for more understandable and individualized service configurations and thereby increase customer satisfaction and retention.

Based on observations of the practice in sales-oriented advisory, we will identify five problem areas – dialog, stickiness-of-information-needs, burden-of-choice, agency conflicts as well as diverging goals – that inhibit co-creation in advisory encounters. For these issues, we will present four general solution perspectives: (1) "Service encounter as learning process", (2) "service encounter as design process", (3) "service encounter as collaboration", and (4) "service encounter as experience". Being grounded in value co-creation literature, these perspectives will guide the development of encounter designs in the domains of travel counseling and financial advisory. For these examples, we show how the requirements have been implemented in collaborative advisory systems. Finally, we will argue that the dedicated technological implementation of the design requirements heavily depends on the specific domain and requires careful consideration of the domain's specific practices and problems.

# 2   Co-Creation of Value

In general, marketing's concept of value co-creation provides a shift from a firm- and product-centric view to a more balanced view of firms and clients interacting and co-creating value with each other. While the according literature is mostly concerned with the *what* of value co-creation, e.g., its foundational premises and underlying concepts (Vargo & Lusch 2004; Vargo & Lusch 2008; Grönroos 2008), its implications on service systems and service science (Vargo et al. 2008; Spohrer & Maglio 2008) and even its moral and ethical implications (Humphreys & Grayson 2008), discussions are scarce regarding *how* firms could practically embrace value co-creation concepts and enable clients to co-create value.

To this end, Prahalad and Ramaswamy (2004) delineate a more practical perspective of "co-creation experiences", emphasizing on the interaction between firm and consumer as the locus of value creation. Today's consumers are increasingly informed and are no longer dependent on communication from the firm. Therefore, Prahalad and Ramaswamy (2004) suggest that companies have to focus on personalized interactions to co-create value with their clients. For such "co-creation

experiences", the authors define a model of four main facilitators (DART). *Dialog* includes the conversations between clients and the firm to jointly define and solve the client's problems, while granting the firm to learn about the client. However, meaningful dialog between client and firm presumes overcoming information asymmetry, i.e., they need to have the same *access* and *transparency* to information. For active participation in co-creation, the company's information has to be available to the client, including "information search, configuration of products and services, fulfillment, and consumption" (Prahalad & Ramaswamy 2004, p. 11). Implementing these building blocks should enhance the consumer's assessment of the *risk-benefits* of her decisions, whereby she takes some responsibility for the co-created service or product.

Auh et al. (2007) investigated the antecedents of co-productive client-firm interaction and found them to be the *perceived clarity of the task* (the extent to which the client is aware of what is required of her in service production), her *expertise* (i.e., the quality of input she is able to provide) and her *motivation to participate*. In a similar attempt to provide insights into *how* practical co-creation might be addressed, Payne et al. (2008) introduce a framework of three value-creating processes. The *customer value-creating processes* comprise the client's processes, resources and practices to achieve a particular goal; in these processes relationship experience is most important and leads to client learning, potentially leading to changes within the client's attitudes and preferences; the *supplier value-creating processes* are their analogous counterparts, focusing on the design of value co-creation experiences with clients. Finally, the framework includes the *encounter process* between client and supplier, i.e., exchange encounters (e.g., money, products) or collaborative practices in which they perform activities. Regarding value co-creation, such *encounters* are delineated as the locus of interaction and, thus, also of value creation (Prahalad & Ramaswamy 2004).

The notion of encounters marks an interesting point of intersection of marketing literature, which engages itself with the underlying service logic, and Information Systems literature, which is concerned with the inherent collaboration of actors in such service encounters and the potential role of technological artifacts. A first link between the two fields can be found in Novak's (2009) "solution framework of expert-mediated interactive value creation" for advisory scenarios. Building on Reichwald & Piller's (2006) notion of "interactive value creation" and its main problems – the *variety paradox* ("burden of choice" related to an overwhelming number of alternatives and options provided by the supplier to fulfill the client needs), *sticky information* (difficulty to transfer the implicit individual needs of the client to the supplier) and *information asymmetries* (the inability of the client to assess ex ante the true quality of the co-created product or service) –, the framework outlines some initial design requirements for client-advisor interaction. For co-creative interactions, Novak suggests the provision of a *shared collaborative artifact* to facilitate dialog and obtain a shared understanding of the client's local world of knowledge (problem space) as well as the advisor's knowledge perspective (solution space). The *visualization* and *shared manipulation*, i.e., direct exploration of the information spaces, allows the client to implicitly uncover and express her needs, thereby alleviating the problem of sticky information. Observing the interaction of the client with the solution space, the advisor may develop a better understanding of the client's needs and propose adequate solutions and decrease her burden of choice. Finally, the *joint interaction* should help to alleviate hidden actions and heighten trust between the parties.

Novak & Schwabe (2009) extend this framework for the domain of travel counseling, identifying *sticky information needs*, *value co-creation*, *user experience* and *relationship marketing* as the main building blocks. From these concepts they derive meta requirements of value-added advisory service provision, which are then mapped to design requirements of a cooperative artifact mediating the client-advisor interaction.

# 3 Advisory as Co-Created Service

Having its seeds in psychology, counseling or advisory (e.g., career advisory, marriage counseling, substance abuse counseling) strives to provide decision guidance for a client and her specific problems

by means of information brokerage and/or the practice of capabilities (Schwarzer & Posse 1986), with the ultimate goal of helping the client in helping herself. Today, the notion of advisory is also used in context of sales-oriented service encounters, e.g., management consultancy, travel counseling and financial advisory. In such encounters, the client seeks to be enabled and empowered to solve the problem at hand (e.g., planning the next vacation trip or deciding on financial investments) or to implement a recommended solution. As such, advisory encounters share some characteristics, which are discussed below.

**Encounter of experts and laypersons**. Typically, advisory can be seen as encounters of experts (advisors) and laypersons (clients) who are requesting help within a specific problem domain. The client may be a firm (management consultancy), a diseased person (medical or psychological advise), or a person seeking support for some complex decision (e.g., investments, insurance, travelling, etc.). In such encounters, the client is assumed to have little knowledge about the possible solutions to her problem as well as the process of finding them. The expert's problem-solving strategies and his solutions may therefore be unfamiliar, numerously overburdening or too complex − a phenomenon described as "burden of choice" (Schwartz 2005). The advisor-client encounter is thereby affected by the client's expertise and the clarity of her role (or task).

**Joint problem-solving process.** Prior to the actual service encounter the specific configuration of its result (e.g., travel itinerary, investment portfolio) is unknown to both parties. The solutions for the client's problem are co-created on the basis of advisor-client interaction. Hence, advisory can be regarded as joint problem-solving process, which may not be accomplished without inputs from either party − the advisor is enabled to recommend solutions only if the client provides comprehensive information about her specific needs. However, the information asymmetry in the joint problem-solving process is two-sided: like the client needs access to the advisor's information, the advisor needs to access the client's information (e.g., her needs).

**Needs elicitation and mapping to solutions**. Depending on the stage of the problem-solving process (Kuhlthau 1999), the client's problem may be rather fuzzy and sticky (von Hippel 1994), being only accessible to the client herself. To elaborate an adequate solution space, the advisor has to get into conversation with the client to gather need information (Thomke 2003) describing the problem space. Thereby, he has to develop a problem statement that is understandable for both parties and may act as a guideline through the advice-giving process. As the mapping of the problem to the solution space is primarily provided by the advisor, he must also explain its underlying rationales − such an explanation, however, is prone to the principal-agent problem (Eisenhardt 1989), since the advisor might exploit the inherent information asymmetry to his self-interest. To facilitate the dialog and further the client's understanding, especially regarding the risk-benefits of the proposed solutions, transparent access to the advisor's information is needed. However, the interaction is constrained by the expertise and the clarity of the client's role (or her tasks) as well as, of course, her motivation to participate.

Looking at the characteristics of advisory encounters, we argue that their value is inherently co-created by both the advisor (and thereby by the firm) and the client, as the solution of the client's problem requires active participation and information exchange from both parties. However, today the premises and facilitators of value creation in advisory services are confounded on the following levels:

(A) Business Models: Sales-oriented advisory processes have the goal to close a contract after the encounter. Therefore, they are ultimately designed to sell products. This can lead to unsatisfactory results for service clients, which may manifest in an avoidance of service encounters (Dilts & Prough 2002; Mogicato et al. 2009).

(B) Service Encounters: Sales-oriented business models undermine the service encounter, especially the premise of unrestricted information exchange in a transparent dialog, since the advisor has incentives to *sell* services or products rather than to actually *advise* the client, i.e., providing the optimal solution to her problem. The financial advisor may want to sell the products purported by the bank, and the travel agent may have a stake in products with high margins. This provokes a principal-

agent conflict that may lead to distrust, since the client cannot be sure that the advisor acts in her interest (Novak 2009).

Taking the advisory characteristics into account, the main obstacles of value co-creation can be summarized as follows:

(1) *The dialog problem*: Since the advisor and the client may speak different languages in not necessarily overlapping problem and solution spaces, a strong, sophisticated and empathic dialog is needed to derive a clear problem statement from needs elicitation and map it onto solution candidates.

(2) *The stickiness-of-information-needs problem*: The explicit expression of the client's vague needs in order to agree on a problem statement depends on her state of need and the difference of categories and terms of problem and solution space.

(3) *The burden-of-choice problem*: The amount and complexity of solution candidates hamper decision-making.

(4) *The principal-agent problem*: Sales-oriented advisory settings are subject to an inherent conflict between the advisor (agent) and the client (principal), as discussed by agency theory (Eisenhardt 1989) and found in the practice of service delivery.

(5) *The diverging-goals problem:* Although advisory is laid out as a joint problem-solving, existing business models and strategies hamper advisory encounters. This intensifies the principal-agent problem and undermines symmetric conversation between advisor and client – thereby putting the endeavor of advisory at stake.

We argue that these problems obstruct the core competencies of advice-giving services: guiding the client through information search and aggregation and enabling her to make her own decisions. To address these problems, we suggest a shift of advise-giving practice towards co-created services along the following perspectives:

**Service encounter as learning process**. To address problems (1), (2) and (3), the advisor should be enabled to apply techniques and tools to learn the client's language and her problems as well as her attitudes and preferences. According to these aspects, the solution candidates can be individualized and presented in a comprehensible manner.

**Service encounter as design process**. The advisor should act as a moderator or guide through the process of designing the result with the client, thereby addressing problems (2) and (3). The emerging value is co-created and thereby should affect the client's motivation to participate.

**Service encounter as collaboration**. Advisor and client must be enabled to communicate on equal terms and collaboratively seek for a solution, addressing problem (4). Such collaboration requires providing transparent information access for both parties as well as enabling the advisor and client to observe their respective actions.

**Service encounter as experience**. In conjunction, the aforementioned perspectives should increase the client's experience, or, in other words, make the co-creative endeavor "experienceable". Creating engaging experiences, however, requires paying more attention to the process of advisory and the advisor-client encounter. Problems (4) and (5) should thereby be addressed "from within" by focusing on the client's experience as advisory's value proposition instead of the products being sold.

Implementing the perspectives may not only improve service provision for the customer – being provided services that are more individualized, understandable and potentially more satisfying – but also for the provider, who should be able to increase the likelihood of closure as well as customer retention by better involving customers and creating joint responsibility for advisory results. Therefore, implementing concepts of value co-creation may also be a promising strategy of differentiation against competitors.

# 4   Methods

The following examples have been developed in two individual design science endeavors (Hevner et al. 2004) with the goal of designing IT artifacts to support advisory encounters. To gain the necessary insights into the domains of financial advisory and travel counseling, we engaged in comprehensive exploratory research (Stebbins 2001), which featured mystery shopping activities, observations of advisory practice as well as interviews and surveys of important stakeholders (management, advisors, customers). Details on these investigations can be found in Mogicato et al. (2009) (financial advisory) and Schmidt-Rauch et al. (2010) (travel counseling). Building on these activities, we were able to describe each domain's specific problem areas and to propose general solution perspectives. We designed and implemented the artifacts along the user-centered design process (ISO 1999) and according to the scenario-based development (Rosson & Carroll 2002). In the design process we formulated design requirements that were then mapped to design features of service encounters and supporting IT artifacts.

The artifacts were implemented as functional prototypes and evaluated in *exploratory tests* using experimental techniques. In the tests, real advisors and clients (students) were using the artifact in realistic advisory situations. The test design required every customer to undertake two advisory scenarios, one simulating the classical advisory situation and the other involving the use of the IT artifact. We conceptualized the setting (with/without IT support) as independent variable and investigated its relation to dependent variables such as satisfaction and user experience (e.g., Novak & Schwabe 2009; Schmidt-Rauch et al. 2010). For the domain of travel counseling, approximately 30 different advisors and over 100 test clients participated in 9 tests; for our financial advisory research, one test with 4 advisors and 12 clients could be conducted so far.

# 5   Example: Travel Counseling 2.0

For the domain of travel counseling, evidence for the described problem areas could be found in more than 50 in-situ observations of advisory encounters in travel agencies (e.g., Novak & Schwabe 2009; Schmidt-Rauch et al. 2010).

## 5.1   Design Requirements

A typical client encounter takes place at a desk where the travel agent sits behind a PC operating several booking interfaces regarding flights, hotels, etc., and a common web browser for prompting requests to general search engines such as Google. Additionally, the advisor has physical materials at his disposal, such as catalogues, geographical maps, a calendar, a notepad etc.

The encounter starts with a brief welcome. Typically, the agent will arbitrarily write down the client's request on a sheet of paper and prepare a first offer. While the agent investigates the needed information using his PC, the client has to wait for further involvement – this manifests the *dialog problem*. It is furthered by the explicit information asymmetry between agents using a PC without the clients being aware of what exactly he is doing (*principal-agent problem*). Soon, the agent will present his first offer – in most cases, however, the agent will not discuss the underlying rationale nor provide any alternatives. This usually initiates a process of trial-and-error, where the client might refuse the individual offerings and the advisor repeatedly prepares other offerings. As no effort is put into elicitation of the client's needs (*stickiness of needs*), only in the best case the client will agree on one of the following trials – in the worst case, however, she might leave the travel agency unsatisfied. Although the packaging activities may prevent the client's *burden-of-choice*, this proves to be ineffective, since an understanding of the underlying rationales is scarcely feasible for the client – she therefore might also conclude that the agent opportunistically selects high-margin products as primary solution candidates (*diverging-goals problem*).

Based on these observations, a collaborative travel counseling concept was designed that builds on the notion of value co-creation. In the following, we will discuss the concept's design requirements (Novak & Schwabe 2009; Schmidt-Rauch et al. 2010) according to the above-mentioned perspectives:

**Travel counseling as learning process:** In travel counseling, it is important for agents to learn about the client's travel motives and the determinants of the expected trip (e.g., destination, expectations, budget, age of travelers etc.). However, learning about her own needs is also important for the client – in this "shared learning" situation, both parties benefit from explicit needs elicitation as a baseline to agree on a problem statement. This statement should be available throughout the encounter as a point of reference to align the parties' decisions with.

**Travel counseling as design process:** The trip itinerary – as main result of the counseling encounter – typically consists of multiple products, i.e., an arrangement of different products and services that are scheduled and geographically planned in relation to each other. To support decision-making, the itinerary should contain comprehensive (multimedia) information, where editorial product-specific and destination-related information may be blended with user-generated content (e.g., hotel description from a professional content provider vs. an online community's ratings). The process of trip design should allow for inputs from both the client and the agent and thereby emphasize the importance of the client's role as the agent's active collaborator.

**Travel counseling as collaboration:** A baseline function for joint trip planning is to enable equalized communication. This presumes shared information access, shared visualization, transparent and traceable actions as well as shared manipulation of travel content.

**Travel counseling as experience:** This pleasant experience of planning a vacation trip clearly should not be disturbed or destroyed by the consultation situation. We therefore strive to augment the client's active exploration of the solution space by making extensive use of multimedia resources in a visually impacting way, supported by natural and intuitive interaction. This should also enable the agent to reduce his explanation effort as well as the client's cognitive effort for understanding him.

## 5.2    The SmartTravel Prototype

Instead of sitting down at different sides of a desk, in the newly designed consultation encounter both client and travel agent take a seat in front of a touch-sensitive 25'' display. The agent briefly explains the supportive SmartTravel application, and starts to inquire the client's wishes and preferences regarding the trip. The system supports the agent with inspiring icons (showing, e.g., a back pack, a calendar, etc.), which can be labeled with the client's ideas. Once they have arranged some facts (budget, travelers, hotel requirements etc.) and enough soft ideas (what to experience, learn, enjoy), the agent repeats the client's descriptions using the needs overview. If both agree on this summary, they proceed to the planning screen. There, the agent centers a destination by manipulating the geographical map. Annotated on the map, additional information can be found, e.g., activity markers (e.g., showing mountains and explain climbing as an activity opportunity) or photos from online communities. By comparing the agent's narrative to needs overview, the client can decide upon destination alternatives. Once the destinations are fixed, the agent and client investigate the relevant products (flight, accommodation, and destination-related services such as event tickets). To visualize itineraries, the map can be annotated by hand-drawn routes, e.g., connecting locations with a line. The complete itinerary (including annotations) may be exported so the client can take it with her.

In the prototype system (Figure 1), the needs overview links needs elicitation and planning, and therefore provides a direct support for the counseling dialog. Needs elicitation explicitly addresses "advisory as learning process". The visualization of the itinerary supports "advisory as design process", enabling the exploration of products, textual and multimedia information as well as removing, temporally (re-)arranging and comparing them. Designing the trip plan is a shared activity with shared interaction, enabled by the screen's size and touch-functionality. To allow for "advisory as collaboration", we also provide the travel agents with specific methods to collaboratively use technology with the client. Finally, enabling the client to better participate in the most important phase

of travel counseling – the planning of the trip – and pushing less interesting activities (such as the actual booking of flights) into the background, addresses the goal of "advisory as experience".



*Figure 1. SmartTravel prototype: system interaction (left) and planning screen (right)*

The IT-supported consultation design was evaluated in several exploratory tests over the past two years and the following correlates (e.g., Novak & Schwabe 2009; Schmidt-Rauch et al. 2010) were observed.

**Travel counseling as learning process:** For clients, the explicit support of needs elicitation is one of the most surprising and valuable features. They appreciate the needs overview that undisturbingly supports their dialog with the travel agent and provides a contract-like reference.

**Travel counseling as design process:** Since clients do not receive an arbitrary offer but a highly individualized product configuration they arranged together with the agent, they feel a shared responsibility regarding the encounter's outcome. This might also increase the client's willingness to book, since the itinerary is – as one client summarized – "really mine." Agents especially approve the route drawing tool, which provides them with "a natural tool in a professional workspace".

**Travel counseling as collaboration:** Clients like to be part of the search process and appreciate to "work" together with a moderating agent. For agents, this moderator role proves to be challenging. Indeed, they are supported to better control the process of consultation but are at the same time constrained in their control of the outcome, which is the focus of traditional sales-oriented advisory.

**Travel counseling as experience:** In general, the clients liked the comprehensive aggregation of relevant information to support their decisions and enjoyed the multimedia presentations in videos and pictures. One client even reported that he readily wanted to "jump into the screen". The agents appreciated the system also for its seamless integration of multiple functionalities, which today are deployed in a huge variety of different console-like transaction programs.

# 6 Example: Financial Advisory 2.0

Today's financial service providers are facing fundamental challenges in performing their advisory services, even more so in the aftermath of the financial market's latest collapse. Providers have been counteracting cost pressure and competition by optimizing their advisory services towards efficient and effective product sale rather than individualized advisory. As a consequence, clients tend to be dissatisfied with the quality of advisory services (Mogicato et al. 2009).

## 6.1 Design Requirements

In a typical investment advisory consultation of a Swiss bank, the client and the advisor meet in a designated consultation room. In case of a prospect client, for the first few minutes the advisor will

engage in small talk to gather basic information about his vis-à-vis (financial situation, needs and wishes), taking notes on his notepad. He then typically presents the planned process of activities to optimize the client's financial situation and help in achieving her goals. Throughout the remainder of the encounter, the advisor tries to gather as much information about the client's financial situation, her risk preferences, investment experiences as well as her interests in particular asset classes. Building upon this information, he will then suggest an investment strategy that proportionally attributes the client's investment to different asset classes (e.g., shares, bonds, money market). After some iterations of adapting this strategy to the client's preferences (e.g., increasing the amount of bonds and decreasing the amount of shares), the first encounter is finished (typically after up to 90 minutes). The advisor will propose to prepare a product portfolio for the agreed strategy, which will be either sent to the client (including material for establishing the contract) or discussed in a subsequent encounter.

As most clients of financial advisory are laypersons, the *dialog problem* is fundamental. In observations of advisor-client interaction we found that advisors literally speak a different language with an extensive use of technical terms. Relating their problem space of needs and goals to the advisory's vocabulary is further hampered by their vagueness (*stickiness-of-information-needs problem*); typically, a client seeks advice on how to invest a specific amount of money but has no concrete conception the solution. However, the client might not even be sure about how much money to invest but seeks advice because of some vague need to optimize his financial situation. For the discussion of appropriate investment strategies, the *burden-of-choice problem* emerges almost immediately: for each of the generic asset classes (e.g., shares or bonds), hundreds of sub-classes are defined; the client thereby is challenged to state her preferences regarding markets (home market or emerging markets?), industries (agriculture, manufacturing or construction?) or currencies (Euros or US Dollars?). The burden of choice further increases when deciding on specific products from the myriads that are available for each asset class. Here, the advisor's task is to explain and – building on the client's needs and goals – reduce the solution space, so the client may choose from a smaller set of adequate solutions (products). This premise, however, gives way to the *principal-agent problem*. The client might not be able to understand the relation between her needs and the advisor's activities – are the proposed solutions in the client's best interest or does the advisor attempt to sell products he is obliged to by the bank's management (*diverging-goals problem*)? This also leads to the client's notion that she is not in control of the advisory process and the resulting solutions (Mogicato et al. 2009; Nussbaumer & Schwabe 2010).

Building on these observations, we created an IT-supported advisory concept (Nussbaumer & Schwabe 2010) that strives to address the problems by taking a value co-creation perspective:

**Financial advisory as learning process:** To support the client's learning of her problem and solution space, means should be provided to elicit needs and goals as well as to comprehensibly map them to strategies and products. The understanding of the client should be furthered by transparently relating the encounter's activities as well as providing visualizations and explanations.

**Financial advisory as design process:** The client should be enabled to design the result according to her needs, goals and preferences. To allow co-creative design with the advisor, the process and its IT support should allow input and interaction of both parties. As the results are emerging from inputs and interactions, the system should allow for revision and endorsement of inputs at any time (e.g., for emerging needs). Both the client and the advisor should be enabled to challenge and adapt the jointly designed solution candidates and visualize the according effects.

**Financial advisory as collaboration:** Joint interaction of advisor and client requires the provision of shared information spaces that enable to explore and identify solution candidates. To engage clients to participate in co-creation, meaningful involvements have to be provided.

**Financial advisory as experience:** The service encounter should focus on the collaborative endeavor. To make this endeavor an engaging experience, the client must be enabled to comprehend and control the advisory process as well as to jointly interact with the advisor and the artifact. This requires intuitive interaction that stimulates the client to actively participate in the process.

## 6.2 The SurFinance Prototype

In the newly designed encounter, the actors seat themselves at a multi-touch tabletop device (see Figure 2 for an overview), which supports them in accomplishing the most important and complex activities (needs elicitation, risk profiling, strategy development, product selection). While engaging in initial small talk, the advisor is enabled to transparently add the client's needs into an area at the center of the screen, assuring the client that her wishes and needs are taken seriously. To stimulate the client in thinking of additional needs and wishes, pictograms of basic categories (planned purchases, education, and housing) are readily available. Wishes and needs may be detailed with costs and contextualized with a timeline to express the desired period of goal fulfillment. Using the client's financial information, a projection of the potential growth of wealth is added to the timeline, allowing for an assessment whether the client's goals may be accomplished. In such discussions, the advisor acts as a coach, who strives to enable the fulfillment of the client's needs by mapping them to appropriate financial strategies and products. Collaboratively using the artifact, client and advisor are enabled to jointly define investment strategies that transparently include the defined needs and goals. The dynamic visualization enables the advisor to comprehensibly argue for or against specific strategies, while the client can immediately track the impacts on her financial situation. As an overview of all performed activities is provided at any given time, the client may also refine and revise her data by directly navigating to the specific activity. Having agreed on a strategy, the client and advisor may directly implement it by selecting appropriate products – similar to the traditional setting – the advisor prepares an appropriate portfolio for a follow-up encounter.



*Figure 2. SurFinance prototype: interaction and main functionalities*

The "learning process" is supported by functionality to elicit the client's needs and goals and transparently map them to specific investment strategies and products. In the exploration process, activities are linked and connected to increase the client's understanding of the tasks and their inherent risk-benefits. For the joint "design process", the advisor takes the role of a moderator – explaining the activities and suggesting how to proceed –, while the client challenges and adapts his suggestions. To revise and endorse information and evaluate the according effects, the actors may return to any activities at any time. Supporting the notion of "advisory as collaboration", we provide the actors with shared and transparent information spaces upon which they may jointly interact (e.g., finding the optimal strategy given the client's risk profile). To engage interaction with the system, we also carefully designed activities that are explicitly directed at the client, such as completing a risk questionnaire. In combination, the discussed features of client involvement and understanding should also positively influence the overall "advisory experience": the encounter should no longer focus on the results only but on the joint interaction and collaboration in finding an appropriate solution, thereby making "the journey the reward".

Regarding the four perspectives, in exploratory tests we could observe the following correlates:

**Financial advisory as learning process**: Both advisors and clients found the visualization to be very helpful in discussing goals and possible solutions, unanimously identifying the visualization of

projected performance and capital growth as the most valuable feature. Though the clients rated the artifact-mediated situation to be equally comprehensible as the traditional situation, we observed that the visualization functionalities stimulated clients to ask more detailed questions.

**Financial advisory as design process**: Clients and advisors jointly interacted with the artifact and used the projection functionality to simulate scenarios. Some clients found that the solutions for their financial goals were restricted by the software's capabilities. Nevertheless, in general the clients were indecisive whether or not the traditional situation allowed for more control of the advisory process.

**Financial advisory as collaboration:** In our evaluations we could observe an active interaction with the artifact from both advisors and clients. In comparison to the traditional situation we also found that the conversation was less dominated by the advisor. All clients were interacting with those activities that were directed at them, while some stated that they would have liked to interact with the system more often; even the advisors found it helpful to involve the client in using the artifact.

**Financial advisory as experience**: Though the inclusion of IT into investment advisory encounters was novel for all participants, the perceived effectivity and efficiency were on par with the traditional setting. Some clients critically reflected on the established process transparency and thought that the system would restrict the solution space. Others found the artifact to interfere the advisor-client communication, making them focus on the system rather than on each other. Overall, however, the majority of participants stated that they would opt for the IT-supported advisory.

# 7   Discussion and Conclusion

In this paper, we conceptualized advisory services as prime examples of co-created value. The identified five problem areas revealed conflicts between the suggested co-creative nature of advisory services and their practical procedures. We introduced four guiding perspectives that help to bridge the gap between the presented marketing concepts of value co-creation and concrete designs of advisory processes in practice. Thereby, the two examples show first steps towards practical co-creative advisory.

Though the discussed problem areas of sales-oriented advisory as well as the perspectives on co-creation might hold true for other advisory domains, we argue that the requirements for service design and IT support have to be ultimately driven by the respective domain, i.e., the specific advisory situation and the motives of their stakeholders. As our two examples show, the same approach of conceptualizing value co-creation processes will result in different design requirements and diverging instantiations according to the domains. Two exemplary differences can be found in the different nature of the advisory results and the client's attitude towards them.

Firstly, in financial advisory, products are credence goods, i.e., clients may not be able to demonstrate whether the success or failure of the purchased products in relation to her expectations is due to the specific counseling process, the advisor's or bank's efforts or is simply a product of chance. Travel products and services, on the other hand, may only be experienceable *after* purchase, but both their quality and the causes of success or failure may be assessed. This difference may cause differing client attitudes – while the client might be patient in travel counseling, she might be very demanding in financial advisory.

Secondly, as the results of advisory encounters are difficult to anticipate before the actual consultation, several uncertainties are attached to the emerging results. While financial and travel counseling share the characteristic of having intangible results, the actual degree is significantly different. The anxiety of loss attached to one's summer vacation certainly is of different quality compared to one's financial portfolio. In the first case, two weeks of relaxation are at stake; in the latter case, the client's financial future might be affected.

Summarizing, advisory encounters supporting value co-creation should establish win-win situations for both the firm and the client. For clients, such services provide added value in the service encounter, the main locus of client-firm interaction. For firms, on the other hand, establishing co-creative services

enable increased client retention and loyalty. We therefore conclude that the concepts of co-creation could greatly enhance service encounters – it is now time to put them into practice.

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