Business Model Representations for Value Creation Through Service Information System

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Abstract
Developing new service business - models is an essential task for various companies, driven by technological advances and lucrative market opportunities. To support the innovation process, various methods and techniques have been developed for creating new business models. However, the present business model strategies lack a reflection of market characteristics such as co-creation and as well as contextualization, restricting their appeal for creative service - business - models. The Service, Business Model Canvas “SBMC” will address this shortcoming founded on a combined research framework that pursues to advance the current business - model - representation. Aimed at this reason, a focusing group sessions method was conducted that suggested using the SBMC to design, understand, and evaluate co-creation in dealing business models. Besides, this research offers insights to how business model representations are implemented in the process of product creation.

Keywords: Business models, Service, evaluation, business model ontology, service business model canvas.

INTRODUCTION
In previous years the significance of services as a key concept within information’s management has steadily increased (Böhmann, Leimeister, & Möslein, 2014). Service is also a primary focus for many businesses in today's markets and a big obstacle (Chesbrough & Spohrer, 2006; Eggert, Hogreve, Ulaga, & Muenkhoﬀ, 2014). In particular, in this age of information technology (IT) (Cosenz & Noto, 2018), digitization encourages the emergence of innovative services. To create these innovative products on a market (Chesbrough, 2011) developing a creative and sustainable business model is required. Encouraged by this development, the business - model's interest in innovation emerged in a service context (Baden-Fuller & Haefliger, 2013; Böhmann et al., 2014; Chesbrough & Spohrer, 2006).

The development of method’s and tools which enable the business - model to be analyzed in the product framework, justified by this growth, is a critical research challenge. Work may generate useful information through the creation of theoretical concepts, techniques, and methods to test and create business models for the robustness and impact of several limitations that can be identiﬁed in light of current business model research. For one, given the acceptance of the business - model theory, it might not be well suited for service concerning transitions, and exhibit forms a substantial theoretical range. But there are relatively few cases of systematic growth research (Kundisch & Görzen, 2019; Zott & Amit, 2013). Most authors suggest specific, although not separate, approaches to reﬂect and evaluate market models, incorporating useful aspects while showing incongruous design features (Al-Debei & Avison, 2010; Osterwalder, 2004).

As stated due to the variability of different conceptualizations, approaches, techniques, and in the line with current debates for design sciences (Niederman & March, 2012) and business model research (Kundisch & Görzen, 2019; Zott, Amit, & Massa, 2011), which demand extra comprehensive work, this paper aims at exploring a different path to advancing knowledge on the business - model.

The ultimate aims of this cumulative research are to establish a business - model representation’s for the services business model. Business - model representation’s aim to demonstrate a business theory that is based on textual and graphic elements (Zott et al., 2011). To this end, an evolution of the business model canvas (Osterwalder & Pigneur, 2010) was created, the services business model canvas (Andreas Zolnowski & Böhmann, 2013). The BMC is based on the business model ontology (Osterwalder, 2004), was developed...
in collaboration with a large number of practitioner’s and it’s a commonly accepted representation of the business model in research and practice. The business model ontology originates from information system work and provides for the conceptualization of business - model including their semantic’s and relations. The SBMC’s growth emphasizes the BMC’s advancement in cumulative design analysis, which works towards the evidence-based creation of a system for portraying service business models.

This report claimed the naturalistic’s evaluations of the SBMC, which are based on the research for the method of designing this knowledge research (Peffers, 2008). That investigation is the subject of the SBMC. Faced with a focus group session (Ladd, 2018), we are investigating the efficiency of the proposed artifact as an ex-post, naturalistic evaluation tool in its natural environment. Our work is thus aimed at advancing this existing research by examining the usefulness of the artifact and thus proving it (Venable, Pries-Heje, & Baskerville, 2012).

The assessment are likewise of interest to general work on representations of business models. Unlike the utmost of the representation’s assessed through illustrative case studies (Al-Debei & Avison, 2010; Gordijn, Erwich, & Khong, 2002; Osterwalder, 2004), this research suggests a naturalistic analysis of real people, real structures, and real environments (Sun & Kantor, 2006). Augmented by a distinguished study for interpretation, assessment, and development by way of traditional function’s of business model’s representation’s (Kundisch & Görzen, 2019), they explored the use of the SBMC. Instead of assessing the SBMC’s utility, we gained insight into the application of business model representations in the service business model of the development process. Accordingly, this paper adds to the research by addressing the following question: "Can the Business Model Scoreboard Services help better understand, interpret and construct service business models?" In response to this topic, this paper contributes to service research by providing insights into the process of service creation with business model representations and proposing a naturalistic The creation of representations leads to the ongoing research methodology to promote the design and engineering of services (Patricio, Fisk, & Falcão e Cunha, 2008). Besides, this document contributes to an analysis of the business model by using a focus group as a means of testing business model representations. The composition of this journal is as follows. The primary authors present our theoretical structure for business models, business model method, and the SBMC. Instead, the authors explain the evaluation methodology which is based on focus groups. After this will be presented the results of the focus cluster session. Bases on the findings, we derived the implications for the growth of the provision in business model and summarized the findings of S-B-M-C evaluation. The paper finishes with an outlook and a conclusion.

LITERATURE REVIEW
Business – model’s
Because of its uniqueness, the research tends on the business model’s very limited. There is variation in terms of conceptualization, interpretation, and usage, as numerous literature reviews demonstrate (Fielt, 2011; Andreas Zolnowski & Böhmann, 2011; Zott et al., 2011). Concerning this diversity, one could argue that this illustrates the theoretical variation required to cover different industries, services, or organizations. This variation coincides with the start of business model analysis, which considers different business models based on the Internet or IT (Afauh & Tucci, 2001; Ethiraj, Guler, & Singh, 2000; Timmers, 1998). The aim of this research was by analyzing the business logic to add unique, novel business models to business model research. Based on this heterogeneity different definitions of business models arise (Afauh & Tucci, 2001; Al-Debei & Avison, 2010; Zott & Amit, 2007). Contrary to this, readers may also argue that the abstract variety is also slowing advancement in research. The theoretical complexity can also be the result of the early explorations of the research field. Additionally, the variation can reveal a broad collective study background (Zott et al., 2011).

Because of the heterogeneity, there is a wide variation of ontologies and interpretations. Three communal ontologies are the 3e-value of ontology (Gordijn et al., 2002), the business models of ontology (Osterwalder, 2004), and the resources event agency of ontology. These representations contain be differentiated in different’s investigative outlets. On the order hand, and it may include more flow concerned with the view of the business model’s. A popular example of this process is the 3e-Value approach, which may take some more flow-oriented view of the business model’s (Gordijn et al., 2002). Meanwhile, on the other hand, the research source contains a comprehensive view of the business logic or system-level product of an economic organization (Zott et al., 2011). One popular example of this flow is the Ontology Business Model by (Osterwalder, 2004) and the Business Model Canvas for (Osterwalder & Pigneur, 2010).

Compared to the existing criticism of heterogeneity and the lack of aggregate study in the analysis of the business model (Kundisch & Görzen, 2019; Zott et al., 2011), the researchers highlight cumulative implementation studies and work towards the evidence’s based designed of a framework for representing the service’s business model. In this study, the business model’s provides a detailed system-level explanation of the business logic that explains how value is generated and captured (Zott et al., 2011). Hence this combined study is based on the “BMO” and the “BMC” as a broadly applicable study and repetition system. The “BMO” epitomizes the reinforcement of elements, relationships, terminology, and semblance, and is the hypothetical basis for the “BMC”.

Services trend to the business model
The emergence of service-dominant logic (Vargo & Lusch, 2004) and service logic reflects a paradigm shift and highlights the growing importance of service. This transition is accompanied by a continuous shift from goods to service-oriented business models to generate new opportunities in technology (Böhmann et al., 2014).

However, this transition often occurs in the research problems of the business model. The system has specific features, which depend on the design of the system. According to product logic, quality is situational and produced in collaboration (Böhmann et al., 2014; Edvardsson, Fetherstonhaugh, & Nay, 2010). Considering the definitions of service, as in the sense of service-dominant logic, it is characterized as “[...] applying specialized skills (operating resource knowledge and skills) through actions, procedures, and results for the benefit of another entity or the entity itself” [27, 29]. Grönroos has got to give a similar concept. He
describes service as ‘[...] a network consisting of a set of activities that take place in encounters between a client and individuals, products and other physical resources, processes and/or infrastructures that support the service provider and may include other clients in assisting the daily practices of the client’ (Grönroos, 2008).

As these definitions demonstrate, service is a process that creates value in the interaction between different actors. This partnership is of particular interest and also known as value co-creation and is listed as one of the core service elements (Vargo & Lusch, 2008). The quality of service is also situation al because of the interaction between the actors and, therefore, the often-different arrangement of expertise, experience, and resources. But decisions also result in the procedure of getting a specific outcome (Grönroos & Ravald, 2011).

Consequently, the service value is special and phenomenological (Edvardsson et al., 2010; Vargo & Lusch, 2008). Taking into consideration the BMC’s ability to represent the system’s particular interactions and assets, it concludes that it does not accurately reflect specific aspects of operation (Andreas Zolnowski & Böhmann, 2011) in general, there is no scope in the BMC for a consumer-supplier relationship and thus co-creation (Andreas Zolnowski & Böhmann, 2011). To moderate those conceptual infringements, the SBMC was developed.

SERVICE’S BUSINESS MODEL CANVAS

The SBMC is offering a new research approach based on a variation of the BMO (Osterwalder, 2004) and the BMC (Osterwalder & Pigneur, 2010).

ASSESSMENT METHOD

Choice of the assessment methods

The assessment of objects is a basic and important role in the design sciences research cycle (Peffers, 2008). The performances of a research method are evaluated in terms of its utility, efficiency, and effectiveness during an evaluation (Venable et al., 2012). More comprehensively, according to Hevner he defines the evaluation of the artifact in terms of “[...] versatility, completeness, quality, precision, performance, reliability, usability, organizational fitness, and other related value attributes” (Hevner, March, Park, & Ram, 2004).

This adaptation focuses on service providing representation and thus provides a detailed system-level explanation in business logic, it is explaining how value can be produced and captured (Zott et al., 2011). As shown in fig.1 the solution is split into three perspectives. User perspective, partner perspective, and business perspective; these points of view distinguish the actions of the actors and demonstrate their interactions with each other.

The SBMC’s overall logic takes into account both the contribution to the business model of services and the benefit of the actors. The SBMC allows the reflection of the customer experience and hence the co-creation by integrating the customer's point of view. The value proposition dimension provides an overview of each participant’s proposed value. These purposes must represent the interests of customers, associates, and the company itself. The dimension of the connection represents the continuity of the relationships between the actors. Nonetheless, networks define the contact points between those actors. In the context of revenue streams, monetary income and business models are demonstrated. Key resources and activities on the left-hand side describe the input to the service process. Finally, the cost structure differentiating between the cost's that each performer is expected to bear (A. Zolnowski, Weiss, & Böhm, 2014). The SBMC is the subject of assessment presented in the rest of the paper.

The evaluation method must be selected in two dimensions as described in the Strategic DSR Evaluation System (Pries-Heje, Baskerville, & Venable, 2008). The first component differentiates Between an 'ex-ante' or 'ex-post' assessment and a second component between a 'real' or 'artificial' assessment (Pries-Heje et al., 2008). The authors used the DSR Evaluation Research Design Four-Step Process to differentiate between those measurements and to define the object’s evaluation mechanism (Venable et al., 2012). Therefore, we chose an ex-post, naturalistic assessment
approach to test the SBMC as a reflection of the business model and is used as a method for analyzing and evolving business models. Through carrying out this test, we examine the efficacy of the proposed artifact in its natural environment. And we are faced with real people, real structures, and real environments (Sun & Kantor, 2006). We chose to conduct focus groups because of the traditional application of business model representations in laboratory environments. Therefore, we select a similar strategy as (Grott et al., 2018).

Emphasis group evaluation
Focus groups are among the traditional social sciences research methods and are used as both an exploratory and a confirmatory process. In this particular study focus group are a group discussion between 6 to 12 people that addresses a specific subject under a moderator's supervision's (Stewart, 2007). The debate focuses on a particular subject and thus allows rich qualitative data to be obtained as an artifact of this study, we perform confirmatory focus groups to test the SBMC, which underline a realistic implementation of the constructed artifact. While doing so, the findings of this assessment illustrate the utility of the SBMC and thus the intent of the design article (Venable et al., 2012).

Primarily, the authors highlighted the objectives of the session at the introduction stage. Furthermore, we discussed the current service business situation of the organization and the target of the future service sector. All participants then addressed their role in the business and expectations for the session. As the next move, we encouraged the participants to generate ideas for promising programs. All proposals were discussed shortly and given priority. Then they selected two ideas for further development. Second, at the design level, the participants were divided into two subgroups, based on the SBMC, which established service business model's for the selected idea's. To the uncertainty (Andreas Zolnowski, Weiß, & Böhmann, 2014), the design procedure began with a company-centric perspective. Perspectives of the customer and associate had been covered. Based on our workshop architecture, we use the SBMC like the Osterwalder and Pigneur classic BMC that has been cited and adopted by (Andreas Zolnowski & Böhmann, 2013).

Sample
To test the design application, authors choose an I.T development and consultancy company that is currently designing a new service for its customers. The company operates mainly in South Asia, has a turnover of around Ringgit 400 million in (2016), and some 2,000 employees. Given the value of this new service, authors were able to perform a focus group with seven experts. We chose leadership positions experts with a highly heterogeneous background to gain a detailed insight into the organization and get all the necessary information for the business model to grow. The fields covered are Software Design, Application and Requirements, Shared Infrastructure, Marketing and Distribution, IT Service Management, Digital Network, and Operating Systems and Technology.

Approached and criteria for choosing respondents
The approach and criteria for choosing respondents are those working in a company with the plan of developing customer relation using I.T service for customer development in connection and easy going, and the respondents are the company staff who are related to the customer development unite and the managerial position as well. However, this respondent knows little in the BMC and SBMC application that is proposing to them, research aim was for authors to understand if companies know much on the BMC and SBMC.

The stages are:
1. I.T company that is developing.
2. Company that value it customer's needs.
3. Company that is willing to adopted charges and value creation.
4. Well train staff that want to learn and accept learning as the key to success.

Focus group procedure
The group discussion session continued with a short 15-minute break for 3 hours and 30 minutes. This session aimed to develop and explore possible business services models for the future growth of the organization. The focus group of the session was organized in four stages according to the characteristic functions of the business model representations see Figure 3, as design which are Introduction, design, understanding, and analysis. They are listed in the below figure.

When we have gone through all the dimensions, we have broadened the scope and examined all the experiences and the customer's impact on the company business model itself. In doing so, we focused primarily on the topic of co-creation in service business models, thereby discussing the changes to the SBMC.

Figure 3 shows a rundown of all the questions. After that, third is the stage of comprehension, both groups could evaluate and appreciate the other subgroup's service.
the business model can be differentiated between comprehension, analysis, and design in (Kundisch & Görzen, 2019) as creativity. Authors considered the changed structure and the use of the different perspectives in the design, understanding, and review stage to determine the applicability and usefulness of the SBMC. The first evaluation test is formulated. The first appraisal criterion is that of architecture. With that, the SBMC’s willingness to support a systematic production of a concept into a business model is evaluated. To evaluate this criterion, it is important to consider stage two of the focus group session. Participants also had to build a company business model with the SBMC based on a concept.

The participants had to evaluate the business model of the organization at the end of the session and check the performance quality. Furthermore, we base the approach on the design process. This is important considering the complexity of the service industries. Based on these results it is possible to decide whether the method of creation will structure the definition and reduce the difficulty of implementation of the objects.

The second assessment criterion is based on understanding. This criterion considers for the capacity of the participants to recognize a business model of the organization represented with the SBMC. It is the case if attendees can understand and explain the central principle of the business model. Step (3) was performed in a focus group setting to evaluate this criterion. Consequently, we have allocated time to each subgroup to build an awareness of the other subgroup’s service business model. During that time, we asked one participant to explain and analyze the principal concept of the other company business model. A general interpretation of the proposed service business model for the group will emerge, based on the definition and discussion. The third evaluation criterion is analysis. Based on these principles, we examine whether the artifact will facilitate the comparison and discussion of service business models. The stage four of the focus group session was conducted to examine that criterion. The participants had to explore their ideas after a shared understanding of the service business models arose.

The value is evaluated as an analytical tool according to its ability to promote dialogue and comparison.

**FINDING AND CONVERSATION**

**Proposal**

Application data as a design resource was collected primarily from video recordings of the session. Among these recordings the use of the SBMC is examinable. To minimize complexity,
the design process was split into two phases. Firstly, from a business viewpoint, we applied the SBMC. Within this viewpoint, we applied the SBMC just like the classic BMC and concealed the viewpoint of the consumer and partner. Thus, we display the questions from figure 3 in sequence. All issues were answered inside the groups and the pin-boards were hanged with the facilitation cards. Both sub-groups slowly filled out the SBMC business perspective after that, the consumer viewpoint was added, and the co-creation was studied in both service business models. This evaluated the updated structure and SBMC enhancements. Guided by the co-creation questions from figure 3, the participants revised the existing facilitation cards considering the responsibility. Some of the facilitation cards were in the possession of the client, and others in the possession of the focal business.

The participants also saw gaps in their service business models when we discussed the responsibilities and added new information-sharing cards on the pin-boards to the customer viewpoint. The participants give a positive response, based on the results of the process. One participant said, "[...] the results are important and especially conclusive. Both versions are really interesting to me." A further participant said, "You've got a general idea of what you want to do." One participant eventually summed up, "What we have done here is all right.

Particularly when you use it as a practice for a business model case and as a check [...] I can tell right now; we don't need to follow a model where the consumer doesn't have a value proposition. That's because there's no reason they should buy it. In this portrayal, that's clear. I think you can only build a business model that works if you can fill almost all the fields above and below.

Understanding

A second feature of the SBMC is the interpretation of a business model. Participants had to study an unknown business model and identify the necessary elements for this (Osterwalder, Pigneur, & Tucci, 2005). One of the participants had been worried at the start of this mission. The following comment reflects his feeling: "I've been researching the business model. However, I do not think I am well qualified for this mission. No. Another participant had just begun outlining the element by element of the service business model. For that, as in the design phase, the participant navigated through the dimensions (see figure 3). While reading the business model for operation, the participant asked the other subgroup for more specific details, e.g. "Yeah, the customer is at the top. [...] You read [...] No End Client. [...] We have a question for this aspect. "To improve the participant's understanding, the business model developers said" The conversation was important because the pinboard elements were abstract in character. Thus, one participant said, "This confirms my concern with this. I feel that the topics [the facilitation cards on the pin-board, respectively; added by the authors] are very vague [...] Therefore a description of the facilitation cards was required.

The second service business model's description and discussion had been very close to the first hit. During the second run, the participant explained the other sub-groups entire company business model correctly. This was also accepted by a statement from this subgroup, "This is exactly what it is." However, there was a discussion after this clarification that discussed the architecture for the business model of the company in more detail. This debate questioned the current pin-board facilitation cards and thus improved the general perception of the second service business model.

As far as the consumer perspective and co-creation are concerned, the consumer-provider relationship was an important subject in both clarification and discussion rounds. Owing to the distinct view of both the organization and the consumer viewpoint, both participants were required to think about the customer's effect on the business model of their operation. Customer-centric value propositions such as "business knowledge," tools such as "service managers with specialized experience" and customer-centric revenue streams such as "pay-per-view" have established the relationship between the two actors. Statements such as, "No ... I'm serious! What [value; authors' note] will I be getting? The debate was discussed from a consumer viewpoint.

Examination

The research is the third criterion that we have been considering. The planned business model's is the subject of evaluation here (Osterwalder et al., 2005). Therefore, we witnessed the debate about the business model planned for the company. Specifically, we address and compare the critical parts of one selected service business model (Osterwalder et al., 2005).

The comparison of business models led to a debate. So, one of the participants mentioned; and "since we have a different design both versions differ greatly from each other. We respectively our business model for operation the authors added' use every other operation. Even with the other services we give our services only in a row. Yet 'in the other business model; added by the authors' most relevant is the consumer requirement's. So, we need an advisory service's. We incorporate that, what suits the consumer best. Another participant added "Yeah, I think the key difference is this. On the one side, we understand what the customer wants, and that we need a particular solution for the customer. On the other hand, we see for example that the same conditions apply to five clients. So, we develop a solution and deliver it to the customers. In the study, the participants compared both solutions with each other, evaluated the value for and the co-creation with the client, and explored a potential implementation in the current business of the organisation. One participant said, according to the resulting design, "thus the matches are very easy (between the models; note by the authors). It's also not to question the meaningfulness of leading both models together. But we're concerned about the probability of realization." Therefore, the participant said that it would be too difficult to integrate all service business models simultaneously. "We'd spontaneously suggest this is a panacea that has the character 'is never over'," one participant said. Nevertheless, the designed models can be sequentially realized.

The essential design elements were defined After evaluation and review of the business models about their possibilities for implementation. These elements reflect the specifications necessary to effectively execute the business model for the company. Aside from the company's internal resources, such as special skills and business awareness, customer insights are also required. The organization has to hold customer seminars to get this information. One participant said, "[..] we
should directly go to a customer and say, let us do a workshop [...] How do I envision the next few years [the consumer respectively; the author's note]? And in so far as the consumer uses the service, in a self-service system, the consumer can identify his services individually.

Outcomes
The focus group execution was successful according to the participants. Statements like "[...] I'm shocked that within three hours we have produced something worthwhile. That alone is worth the fact that we regularly apply this method. And the more often you do this, the more likely you are to get a ground-breaking idea. A further participant agreed by 'I also think the outcome is very important. [...] Results will not go unnoticed in a box. Results were also rewarding for the researchers. Climate, and therefore in a real system and with real people (Sun & Kantor, 2006).

The reduction of complexity was of importance in the design process. The business model is much more complicated than a conventional product-centered business model, due to the participation of multiple actors in one company. This complexity is difficult to handle, as (A. Zolnowski et al., 2014) have already started, and requires an adapted procedure. With our approach, all service business model's architecture was running smoothly. Guided by various questions (see table 1), all participants performed the tasks sequentially and filled out the element by element SBMC. The discussions were especially fast and simple to manage from the company perspective. The participants have had to change their thought since the implementation of the second viewpoint. From a certain point on the participants had to study the current elements on the pin-boards and consider from a customer's perspective. That, in the first minutes, was a real challenge. The participants, however, acknowledged this new insight after a few minutes and completed their business model of operation. Therefore, the SBMC encourages participants to broaden their normal, company-centered viewpoint by introducing this new viewpoint to a more customer-centric service perspective.

The S-B-M-C successfully facilitates the participants' understanding by focusing on understanding as another aim of representing a business model (Kwak, Kim, Lee, & Gim, 2019). The company business model's understanding can be strengthened by providing a conceptual structure, as well as in the design process. Accordingly, business model representations will propose structures for reading and creating business models to assist the overall understanding and ambiguity. Otherwise, the user can read the basic details but can have trouble correctly interpreting it.

The history of the respective participant is another important factor that influences understanding. An individual from a technical department presented the first business model for operation, moving element by element through the measurements, often discussing the value of a particular element in the overall picture (Gilmore, McAuley, Miles, & Pattinson, 2020). The second person has got a history of marketing. During his explanation, he concentrated on the entire picture and was, of course, still telling us the overall story concerning the specific elements of the service business model. This phenomenon demonstrates the complexity of the group and their variations in the implementation of business model representations. The laboratory groups should be as heterogeneous as possible in order to solve potential problems and maximize the users' heterogeneity. During the explanation of both service business models, the entire group was caught up in a dispute. So, the SBMC was used as a contact element. The dialog led the participants to question the existing elements and verbalize the facilitation card's true meaning. Finally, representation use was quite successful and promoted a shared interpretation of the findings across the entire community.

The SBMC enabled the participants to compare the targets, based on the analysis of both service business models. The participants adopted a strategic viewpoint on their proposal, based on dialogue and contrast. First of all, this viewpoint allowed them to confront each other with their thoughts. Second, by incorporating the company viewpoint, SBMC pressured the participants to consider from a consumer perspective. The participants addressed how such programs should be introduced, influenced by an internal strategic and consumer viewpoint. Consequently, they thought the implementation process could be split into two stages. Next, they must incorporate a solution involving comprehensive customer interaction and co-creation. This phase's main goal is to learn from the customer and to extract the services required for further development. After that, we could embed the other business model of the company. This approach will use the data generated to incorporate customer-specific, additional services. Individuals can learn differently by examining and contrasting business models with a representation of the business model. Based on this, it is possible to derive the decision promoting business growth in a standardized way. In the next step, it discussed and identified basic design elements. The participants thus addressed both internal and external elements required to incorporate the service business model. A description of the co-creation between the focal firm and customers is possible with the aid of the SBMC.

There was still one issue: the consistency of the business model resulting from the service. The SBMC helps the consumer organize his thoughts and develop a company business model in a standardized way, due to its origins as a qualitative approach (Carter & Carter, 2020). The problem is the free data generation approach and canvas filling approach. Consequently, the quality always depends on the setting and the people using the SBMC for their purpose.

Supposition and Viewpoint
A naturalistic assessment of the service business model canvas 'SBMC' is performed in this study. To this end, a focus group session (Stewart, 2007) was conducted as an ex-post, naturalistic evaluation approach that investigated the performance of the proposed artifact in its natural environment. This work, therefore, proposes a naturalistic assessment of a representation of the business model that faces real individuals, real processes, and real environments (Osterwalder & Pigneur, 2010). We also examined the implementation of the SBMC, accompanied by a separate study of the normal roles of representations of business models. So, we got insights into integrating business model representations in the development process of the service business model. Based on the data obtained, the SBMC was evaluated, and the implications were extracted for service creation with business model representations.
The SBMC’s development is focused on demands for further collective business model research (Kundisch & Görzen, 2019; Zott et al., 2011) and thus provides a business model canvas (BMC) adaptation. Specializing in the portrayal of service business models, the SBMC provides the possibility of presenting the service business logic. This is important because of the particular characteristics of the service, such as co-creation, shared resource and activity integration, and the special and phenomenological value character (Vargo & Lusch, 2008).

The data obtained from the focus group session shows the artifact’s usefulness in understanding, analyzing, and designing the three typical functions. The participants, based on the SBMC, developed and discussed two potential service business models for the future business of the firm. They developed a common group understanding of service designed business model. Both solutions were evaluated, they were compared and derived basic elements for their implementation. These observations were also confirmed by the participants, drawing positive conclusions about the method, proceeding, and results. So, we can prove that the artifact of design fulfills its purpose in its natural environment.

This commitment also reveals consequences for the establishment of enterprises with business model representations. As seen in the focus group session, the participants use a business model representation as a communication tool to establish a shared understanding within the group. To overcome user heterogeneity this is especially important. However, heterogeneity leads to potential benefits too. The resulting business model can be improved in efficiency by-the complexity of the working groups.

Especially when considering service business models their complexity is often higher than in traditional product-oriented business models. For this, a service-specific approach, like the SBMC, aims to extend the usual point of view of the customers and leads to improved performance. In order to deal with the complexity, it is important to suggest procedures that help to better apply the business model representation. Finally, our session shows that business model representations help to extract the consequences of development and implementation.

This work leads to an interpretation of a business model by holding a focus group session to test a representation of a business model. This allows researchers to construct naturalistic experiments, and thus better explain their research findings. This paper also provides insights into service design, with business model representations. The paper also contributes to the market analysis by incorporating replicable methods for representing a company business model. Nevertheless, it is important to accept certain limitations. This paper presents the findings of a combined service business model research study. Only the single steps of the entire research process can be identified due to our research design according to the Computer Science Research Process (DSRP) (Peffers, 2008). The SBMC was evaluated at the present research level. After this assessment, a summary contribution that condenses the results of all DSRP steps must be developed.

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