A systemic approach to successfully implementing service design projects

Preconditions and influencing factors supporting the implementation of product and service design systems with organisations

Dr. Tina Weisser
**KEY LEARNINGS**

1. without the 6 necessary factors = implementation will be unlikely

2. service design implementation starts on day 1

3. living systems (organisations) are not linearly controllable and are context dependent

4. working against system logic creates resistance with certainty

5. systems and the people within align themselves according to the meaning they give things

6. system logic = survival
   systems strive for balance

7. connection capability
   understand, tangible emotionally and rationally

8. closeness-distance dilemma.
   understanding vs. problem trance
   thinking out of the box vs. system logic

10. holistic exploration & selection mechanism

11. process consultant + mindset consultant + expert consultant

12. no implementation intended, preparing boarders!
### 24 Influencing Factors

<table>
<thead>
<tr>
<th>Factor</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation Maturity</td>
<td>1</td>
</tr>
<tr>
<td>Compliance C-Level Sponsorship</td>
<td>2</td>
</tr>
<tr>
<td>Implementation Management All Phases</td>
<td>3</td>
</tr>
<tr>
<td>Temporary Project Organisation</td>
<td>4</td>
</tr>
<tr>
<td>Inter-Divisional Staff Involvement</td>
<td>5</td>
</tr>
<tr>
<td>Personnel Capacity</td>
<td>6</td>
</tr>
<tr>
<td>Stakeholder Management</td>
<td>7</td>
</tr>
<tr>
<td>Level of Communication &amp; Connectivity</td>
<td>8</td>
</tr>
<tr>
<td>Human-Centered Mindset</td>
<td>9</td>
</tr>
<tr>
<td>Clarity of Roles &amp; Responsibility</td>
<td>10</td>
</tr>
<tr>
<td>User Diagnostics</td>
<td>11</td>
</tr>
<tr>
<td>Organisational Diagnostics</td>
<td>12</td>
</tr>
<tr>
<td>Business Diagnostics</td>
<td>13</td>
</tr>
<tr>
<td>Empowering Employees</td>
<td>14</td>
</tr>
<tr>
<td>Participatory, Iterative Work (Co-Creative)</td>
<td>15</td>
</tr>
<tr>
<td>3-Dimensional Selection Mechanism</td>
<td>16</td>
</tr>
<tr>
<td>Reflection Management</td>
<td>17</td>
</tr>
<tr>
<td>Transformation Management</td>
<td>18</td>
</tr>
<tr>
<td>Compensation Concept</td>
<td>19</td>
</tr>
</tbody>
</table>

Brief description of the 24 influencing factors and four categories.
INTRODUCTION

Service design is a heterogeneous, young field of research that is constantly growing and evolving. To date, research and practice has focused on exploring user needs and developing service innovations. There is agreement amongst service designers and scientists (Koivisto et al. 2014) that it is a major challenge to implement service concepts and that many of the concepts never get realized. If existing companies or organisations add services to their portfolio in addition to their products, adjustments must be made that affect many areas of the company. All companies - whether located in the secondary or tertiary sector - always provide services, both internally and externally. However, these are often not considered strategic topics. Only when they are placed on the strategic agenda does the implementation of this service require new concepts, comprehensive "internal actions" (Brand Flu et al. 2015), organisational and cultural changes for the client organisation.

RESEARCH TOPIC

This study examined the implementation of complex product and service design systems (‘PSS’) at the intersection of external service design consultancy and its customers (for-profit organisations). Today, numerous disciplines are concerned with systems thinking, cybernetics and systems theory concepts. Since client organisations are embedded in complex environments, they themselves represent complex socio-technical systems. There is broad scientific agreement that due to the complexity of organisations, the consideration of systemic inter-relationships provides important insights and perspectives for successful change processes. Since around half of the service design projects are not implemented, it is likely that service designers will have to expand their competencies and methodological knowledge in order to be successful in the future. Dealing with this complexity requires the consideration of new skills, perspectives and approaches. Some main questions that led this study were whether key factors in implementing complex product and service design projects can be identified. How their interdependencies and leverage effects are. Whether barriers can be defined and future potential identified.

RESEARCH DESIGN

The first part of this study is based on the qualitative research style Grounded Theory. For this reason, 34 explorative interviews were conducted and coded with experts from the fields of service design (hellon, livelwork, Dark horse, IDEO, frog design etc.), service providers (EON, BMW Group, Océ etc.), business and organisational consultants (Capgemini, osb-i, Etventure etc.) in order to identify key factors, methods, barriers and potentials. The first result was a series of generic influencing factors, which were analysed for their interdependencies using the sensitivity systems analysis (Vester 2011). Finally, special influencing factors were collected in six expert workshops on the basis of case studies, again evaluated by a systems analysis and reflected on their relations and interdependencies. The case studies evaluated the generic influencing factors of the interviews, condensed them into a set of 24 influencing factors and presented them as the process-related model ‘KUER’ (see Fig. 2).

RESULTS

Success, goals and failures

A crucial question is what success can mean in the context of service design implementation. Targets can be purely process or result-oriented or a combination of both (see Fig. 1). A process-oriented success is when employees learn service design methods, rooms for co-creative work are established within the client company and the organisation prepares for cultural change. In this case, the success would be based on the fact that the client organisation becomes familiar with
new methods and prepares itself procedurally and spatially for future projects. On the other hand, a result-oriented success is when the new service design concept is introduced in the company's everyday life, presented to the user as a value offer and reconfirmed by measurement that it meets criteria such as efficiency, user satisfaction, or return-on-investment (ROI). It becomes obvious that there are different areas of application and success in service design, which in turn depend on the goals and capabilities of the client as well as external consultants. The reasons found for failure are just as numerous. Obstacles may exist on the client side as well as on the service designers’ side. For example, the lack of experience and implementation maturity of external service designers, internal resistance or decision dilemmas of top management, lack of user acceptance, or a better offer of competing brands may be the reason.

**Preconditions and influencing factors**

In spite of the heterogeneous projects found in practice with their specific targets, industries, actors and time periods as well as their multi-dimensional factors, patterns and key factors could be identified. The effect of the 24 distilled factors on each other, their relation in the PSS implementation system, their manageability and controllability and their dynamics were examined. In accordance with the prediction logic and theory of success factors, the influencing factors are categorized into three main areas: Organizational / employee learning, Preparation for future transformations, and New decision-making and selection parameters (including user relevance). The following diagram illustrates the goal and failures of successful PSS implementation:

**Fig. 1: PSS-Implementation goals and failures**

<table>
<thead>
<tr>
<th>Goals</th>
<th>Failures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organisation</td>
<td>Management C-level: No compliance, no priority, too slow KPIs not coordinated Budget / Cost Decision dilemma</td>
</tr>
<tr>
<td>Business</td>
<td>Employees: Lack of skills and process know-how Product / process-centric thinking</td>
</tr>
<tr>
<td>User &amp; Environment</td>
<td>No market acceptance Competition better Competition faster No standalone or imagefit</td>
</tr>
</tbody>
</table>

- **Process**
  - Organisational / employee learning (new methods, abilities, processes, way of working, mindset)
  - Preparation for future transformations

- **Result**
  - Successful PSS
  - Optimized strategy or vision
  - Human-centered culture
  - New Roles
  - Low resistance & high acceptance
  - Employee satisfaction

- **Preconditions and influencing factors**
  - Lack of skills or experience
  - Little organisational consulting know-how (process consulting)
  - Little economic/business know-how
  - No C-level compatibility
  - No credibility
  - No connection capability (language) problem trance

- **New decision-making and selection parameters**
  - Including user relevance
  - Short implementation time
  - Low error rate
  - Low burden of everyday business

- **Quality**
  - User experience (UX)
  - Length

- **Successful PSS**
  - ROI
  - Time / Budget
  - Low follow-up costs
  - Differentiation
  - Positioning

- **42.5%**

- **Successful PSS**
  - Customer satisfaction
  - High acceptance
  - Loyalty
  - Trust
  - High compatibility
PHASE 1
Self reflection & contract clarification

1. Implementation maturity
2. Compliance: C-level sponsorship
3. Implementation management all phases
4. Temporary project organisation
5. Inter-divisional staff involvement
6. Personnel capacity

Clarification

PHASE 2
Search and diagnosis phase

11. User diagnosis
12. Organisational diagnosis
13. Business diagnosis

Diagnostics
7. Stakeholder management
8. Communication level & connectivity
9. Human-centered mindset
10. Clarity of roles & responsibilities
14. Empowering employees
15. Participatory, iterative work (co-creation)
16. Employee commitment and acceptance

Interventions (processes & rules)

17. Goal clarification
18. Expectation management
19. Internal ambassadors

Support

KEY PREREQUISITES

UNDERSTAND & DISCOVER

problem space & analysis
**PHASE 3**
*Future and solution phase*

- ENABLE & DEFINE
- REINFORCE & DELIVER

**PHASE 4**
*Integration phase*

- Future, solution, and test rooms
- Integration & realisation spaces

- User Value
- Business Value
- Organisational Value

- Three dimensional selection mechanism
- Reduced future and test rooms
- Integration & realisation spaces

- Prototyping & selection management
- Decision gate
- Reflection management
- Transformation management
- Compensation concept

Fig. 2: Model KUER
factors were divided into two types of factors. Six of them are necessary hygiene factors (implementation maturity, compliance / c-level sponsorship, implementation management all phases, temporary project organisation, inter-divisional staff involvement, personnel capacity) and eighteen sufficient factors. Necessary factors are prerequisites that must exist in order to fundamentally support or facilitate an implementation. Necessary factors must be fulfilled so that the sufficient factors can have an effect. Therefore, if the scope of Service Design is to result in a PSS implementation the six hygiene factors are indispensable.

Since, as expected, not only one or two autonomous or critical factors were identified, it becomes clear that this is a networked system with strong dependencies and not an isolated project in a context-empty space. One of the fundamental factors is the interplay and structural coupling of the maturity of the system of external service design consulting with the client’s organisation, the so-called ‘double maturity,’ on which, among other things, expectation management and a final implementation success as a result depend decisively. In many cases, the phenomenon can be observed that service design consultancies work on smaller projects for several years before the successful implementation of more complex projects takes place. The assumption is obvious that at the beginning of the cooperation neither implementation readiness on one or both sides, nor the necessary conditions (hygiene factors) existed at the required time.

Model KUER
To date, there is no model in service design research that offers a comprehensive analysis and structure of the influencing factors in the implementation of projects. Therefore, theoretical aspects of related disciplines have been included (sociological system theory by Luhmann, systemic organisation theory). Based on the empirical results, the ‘KUER’ model was developed, consisting of four phases and categories (see Figure 3). ‘KUER’ stands for Key Prerequisites, Understand & Discover, Enable & Define, Reinforce & Deliver. In addition Figure 1 presents the factors in their relations. Finally, a workshop concept was developed which supports the analysis and reflection of PSS implementation projects.

Looking at the ‘KUER’ model (Figure 2), it becomes apparent that the entire process begins with the clarification in Phase 1 (key prerequisites), but that the phases do not have to follow each other linearly since setbacks and feedback must be taken into account. In Phase 2 (understand and discover) a temporary project organisation (‘safe space = space for new ideas and thoughts unfamiliar to the organisation and co-creative working’) is set up and extensive diagnostics are carried out. Users, the client organisation and economic parameters must be analysed. Solutions developed in Phases 2 and 3 (enable and define) are tested in rapid cycles with users, employees and relevant stakeholders and evaluated at decision nodes using a three-dimensional selection mechanism. As activities to support the process and its orientation are used iteratively as required, the transition to the integration Phase 4 (reinforce and deliver) is seamless.

A systemic consideration of this process helps external service design consultancies to achie-
ve a better understanding of the interaction of elementary elements and their causes. The profound realisation that a vast number of social and psychological systems meet here is an important prerequisite, because the fundamental connectivity of the people involved depends on it. It has to be understood that different ‘worlds’, i.e. system logic, languages, terms, cultures and working methods, are temporarily coupled. Furthermore, it is essential to understand that any action that takes place within this cooperation is an intervention and has an impact, possibly at a later stage or elsewhere in the system. This shows the strong networking of actors, measures and actions as well as the non-causal consequences for the client organisation. Knowledge about feedback processes of typical situations prevents a PSS project from stopping or failing. The developed workshop procedure can be used at any time in the process to enable the actors involved to identify new perspectives on the project or to identify barriers in order to derive options for action. The workshop procedure is also suitable for joint reflection after the completion of a project in order to initiate a learning process and the increase of the own implementation maturity. The knowledge about the interrelationships and influencing factors of the implementation model can be used to establish or adapt own success criteria. In this way, unrealistic expectations are prevented at an early stage and the quality and reputation of the service design approach as well as that of the external partner are maintained.

Outlook
Service designers have good prerequisites and methodical approaches to support organisations in change projects. Thus, it is an advantage for the success of transformations if an innovation project and the ‘human-centered design process’ accompanies them. This is also where the potential for differentiation from other disciplines such as classical organisational consulting lies. Design specific skills such as prototyping and the visualization of complex information support organisations in their decision-making process. The acceptance of ‘new and unknown’ among employees will be increased and organisational learning will be made possible. Through the use of ‘human-centered design’ principles, information on relevant environments (‘outside-in perspective’) is supplemented by the user’s perspective and anchored in the decision-making process as a reference variable. Service design consultancies that want to support implementation projects in the long term must acquire skills from organisational consulting - especially in business management and systemic consulting - or expand their service portfolio together with partners. The role of an implementation manager or organisational ethnographer or consultant could be established as a supplement. In addition, the ‘Employee or Organisational Experience’ must supplement the ‘user experience’ at the heart of the activities. The ability to connect with top management in companies (‘business experience’) and employees at all levels of the hierarchy must be ensured throughout in order to be able to work efficiently and innovatively successfully on a participatory basis in temporary project organisations and beyond. A fundamental insight is that organisations as social systems cannot be controlled in a targeted manner. They can only change themselves and successfully implement PSS. However, client organisations have a great need for professional support on the long way to get there.

This text is an excerpt from the dissertation ‘Systemic Consideration of Influencing Factors in the Implementation of Product and Service Design Systems’ - supervised by Prof. Birgit Mager (KISD Cologne) and Prof. Dr. Wolfgang Jonas (HBK Braunschweig). More information about the study, implementation workshops and implementation game / toolkit:

1@feedyourmind.eu
www.feedyourmind.eu

Simon Fritz, B., Einführung in die systemische Organisationstheorie. 2015.
This study would have not been possible without the amazing support of many experts, friends and my family. Thanks to: Prof. Birgit Mager KISD, Prof. Dr. Wolfgang Jonas HBK Braunschweig, Prof. Dr. Lothar Weiss, Adam Salter Strategic Design Consultant, Alexandra Coutsoucos Livework, Andreas Reschner EON, Anton Breman SEB, Bastian Boss Edenspiekermann, Caroline Beck Livework, Cordy Swope Johnson & Johnson, Darrell Chung Service/UX Designer, Dr. Andreas Schimpf Capgemini, Dr. Bernhard Doll Orange Hills, Dr. Joachim Kolling BMW Group, Erik Roscam-Abbing Livework, Ferdi van Heerden Change Agent, Frank von der Reith osb international Consulting AG, Glenn Oberholzer Stimmt AG, Hans Rudi Fischer Zentrum für Systemische Beratung und Forschung, Helmut Ramsauer Spinpartners, Ira Hauswirth EON, Irana Mahrad EON, Iris Jonsthovel Skyhövel, Jan-Erik Baars HSLU Luzern, Jenny Bauschmid EON, Juha Kronqvist Hellon, Kaija Peters, Kalle Buschman Frog Design, Klaas Jan Wierda Océ, Linda Kaszubski C PLUS Unternehmensberatung, Lisa Jackson Frog Design, Marc R. Esser Strategy & Transformation, Marc Richter ibo, Marc Zeh Markzehinnovation.com, Maria Mortati Politecnico Milano, Marzia Arico Livework, Maurice Berninger Elventure, Melis Senova Huddle Design, Melvin Brand Flu Livework, Michael Wend Windeln.de, Nico Rudorf Different, Panick Kenzler Dark Horse, Pascal Soboll Daylight Design, Paul Michael EON, Prof. Dr. Cordula Meier, Philipp Depiereux Elventure, Reto Wettach ixds, Sabine Junginger HSLU Luzern, Sanne Pelgröm Livework, Silke Hillebrandt EON, Tim Müller BMW Designworks, Tim Bookas Breitenstein Consulting, Vanessa Monogioudis IDEO, Volker Roos IDEO, Wolfgang Greiner denkbar, Lena Fricke, Heide, Thorwald & Mila.

“What we need is a new view of reality: the insight that much of what we see separately is connected, that the unseen threads connecting things are often more important to what is happening in the world than things themselves.”

(Frederic Vester)