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# Customer Journey Heatmaps: a wake-up call

**Roger von Zernichow**

Succedo AS  
Sommerrogata 13-15  
N-0255 Oslo, Norway  
rvz@succedo.no

**Marita Skjuve**

SINTEF Digital  
P.O.Box 124, Blindern  
N-0314 Oslo, Norway  
marita.skjuve@sintef.no

**Ragnhild Halvorsrud**

SINTEF Digital  
P.O.Box 124, Blindern  
N-0314 Oslo, Norway  
ragnhild@sintef.no

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**Abstract**

A service providing company experienced an increasing level of dissatisfaction among its customers, and internal disagreement about the root causes of the negative trend. This case study describes a formalized methodology for customer journeys and a procedure to identify customer pain points and unwanted deviations. We present a three-step procedure to improve the company's service experience: 1. Identifying the key planned journeys through customer life cycle and world café methodology 2; Researching actual customer journeys through interviews; and 3. Establishing customer journey heatmaps as a call-for-action and prioritization tool in the effort of service improvement.

**Author Keywords**

Customer journey; heatmaps; customer experience

**ACM Classification Keywords**

H.5.2. User interfaces: Benchmarking, Evaluation/methodology

**Background**

In this paper, we describe a procedure to map and optimize a company's core customer journeys. The background for this work was that the company in question experienced challenges with their customers' satisfaction.

### **The company's core challenges**

- 1.** Too long response time from a customer reports a problem until it is resolved.
- 2.** Lack of routines to handle recurring problems, resulting in individual practices.
- 3.** No quality assurance.
- 4.** Inability to execute seamlessly when cross functional efforts are required.
- 5.** Internal silos and lack of responsibility for the customer's end-to-end journeys.

### **Customer's voice:**

*"There is no internal coordination between their divisions. They do not know what the other divisions say and do."*

*"When an incident intersects two divisions, they mess up. Things are not dealt with and we get no information."*

The company is a midsize provider of IT infrastructure and cloud services for small and medium sized businesses. They are a long-established player in the market and offer both technology and consulting services. Their customers are companies of varying size representing a wide range of industry sectors. The customers had 10-800 professional end users (employee) and one main contact person.

The company experienced an increasing level of dissatisfaction among its customers leading to increased discontinuation. There were disagreements internally as to what the underlying reasons were. The company therefore sought assistance from the consultancy company Succedo, a specialist in developing their clients' capabilities within the human capital area. Succedo has adopted a formalized approach to customer journeys to assist their clients in systematic improvement of services. This *customer journey modelling language* (CJML) is characterized by a distinct terminology, an intuitive visual notation, and is developed by the research institute SINTEF Digital. Succedo used CJML to approach their client's challenges in a systematic way, to identify the major causes of this discontent, and to make specific suggestions for improvement.

Throughout this paper we refer to the following entities: with "the company" we refer to Succedo's client, with "employee" we mean this company's employee, and "customers" are the company's end users.

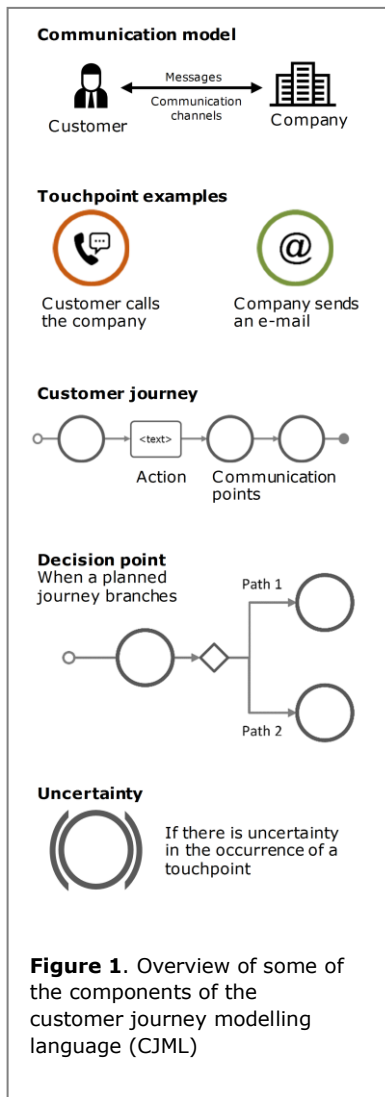
A pre-study was first conducted over a period of 3 months. We observed the company's daily practices and operations. This was done by shadowing,

interviews with employee, analysis of data logs, and customer interviews. The main findings from the pre-study are listed in the side bar.

### **The need for a customer journey perspective**

Creating and offering the best customer experience is crucial for service providers today [12], and it is well established that satisfied customers correlate with increased revenues [2]. However, customers' encounters with service providers often represent fragmented and frustrating experiences resulting in low satisfaction and lost revenues [9]. Customer experience encompasses all stages of the customer's life cycle, like search, purchase, consumption, and the after-sale phase [12]. The existence of silos is inevitable in large companies, and the ability to deliver consistent services requires a cross-functional approach, as well as structure and processes to transcend silo boundaries [4]. Recent publications have raised awareness about the need to consider the customer's end-to-end journey [10], and that a shift away from touchpoints and toward customer journeys will have "profound implications for what customer centricity really means" [11].

CJML enables a detailed and unambiguous specification of a service delivery process from the perspective of the customer [6] (Figure 1). CJML can be used to help service providers to identify and document their planned customer journeys, and to investigate the customer experience associated with customer journeys on an individual level [7-8].



## Investigating the company's key customer journeys

We worked closely with two key contact persons in the company who were responsible for the customer development. We started mapping out the customer life cycle, visualizing the customers' distinct phases from onboarding as a new customer - until renewal or discontinuation of the customer relationship, see Figure 3. The purpose was to get a common perspective on the main elements of the customer's life cycle, and to use this as the starting point for identifying the different distinct customer journeys.

From this we derived five key customer journeys with a clearly defined start and end: Customer Onboarding, Customer Enquiry, Customer Problem, Major Change & Regular Follow-up.

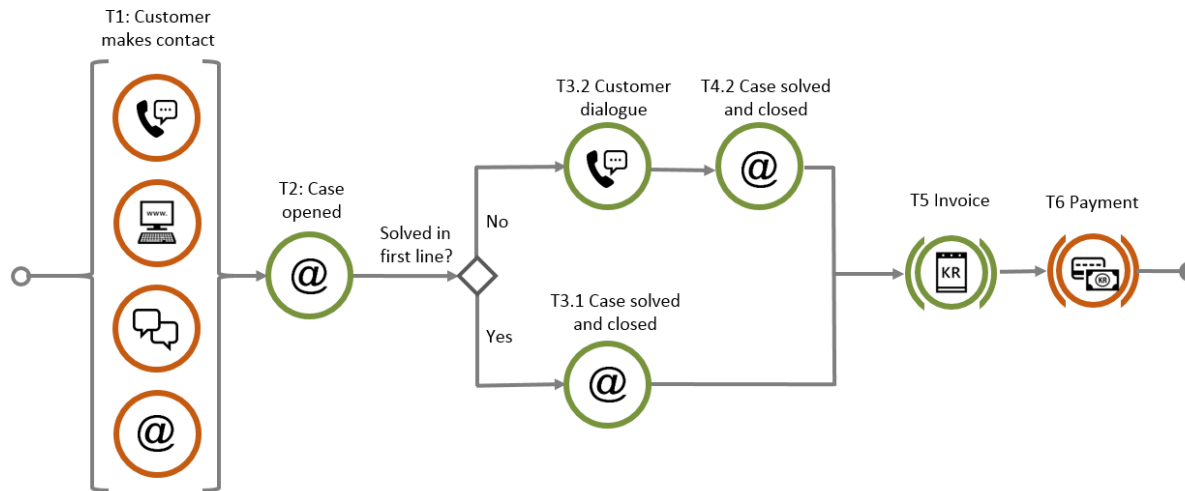
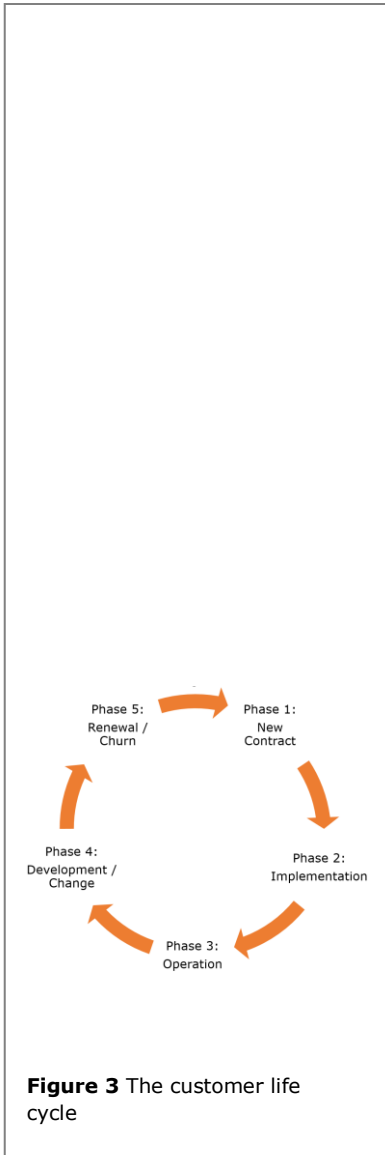
Next, we conducted a series of workshops with middle management resources in the company (7 workshops with a total of 55 participants) to discuss and visualize the key customer journeys. For this purpose we used the world café method [1]. The participants were introduced to CJML before we divided them into groups. Each group discussed and modelled the key journeys at each café table. This resulted in several variants of each key journey. The variants were then discussed with the key contact persons to achieve consensus on the five key customer journeys, and which variants that were considered as deviations from best practice.

Three of the five key journeys were very complex in terms of the number of touchpoints and channels involved. One of the simpler journeys, called Customer Problem, is shown in Figure 2. The customer initiates the journey by contacting the company's Service Desk

(T1). The customer can choose the channel that suits them the best; phone, self-serve web-portal, chat on website or email. Next, the customer will receive an auto-generated e-mail confirming the receipt of the enquiry containing a unique reference number for the issue pending (T2). If the issue is resolved in the first contact (T1), the customer will receive an e-mail confirming the solution and closing of the issue (T3.1). If the issue is not resolved in the first contact, the customer will receive a call-back from the appointed case handler in the Service Desk (T3.2) providing the necessary support to resolve the issue. Following the call-back, the customer will receive an e-mail with confirmation of the solution provided and closing of the issue (T4.3). If the enquiry from the customer is billable (regulated in the agreement between the parties), the customer will receive an invoice for the resolution of the issue (T5). This will then get paid by the customer (T6) according to the agreement, which in turn concludes this planned customer journey.

## Researching the actual customer journeys

We modelled the actual customer journeys by collecting data from company employee and customers. In all, 21 employees involved in the company's execution of the key customer journeys was interviewed. We conducted a simplified version of customer journey analysis [6], replacing concurrent touchpoint and experience mapping with retrospect interviews. In all, 17 interviews were conducted with customers who had experienced one or several of the planned customer journeys in the foreseeable past, resulting in a total of 30 actual journeys. In the interviews we talked through the planned customer journey in question and discussed how the actual journeys unfolded in time on a detailed level, in addition to the customers' overall



**Figure 2** One of the company's key customer journeys: "Customer Problem"

experience. The purpose with the interviews was two sided; to search for deviations between the planned and actual journeys, and to collect customer feedback.

### Customer Journey Heatmaps

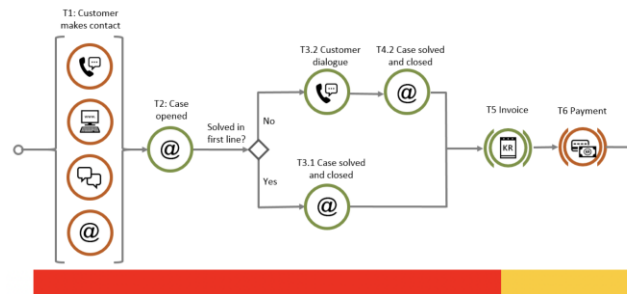
From the interviews we found that both the company's employee and the customers confirmed that the planned customer journey was according to their expectations and would be satisfactory. However, we also concluded that the customers' actual journeys had major deviations from the planned journeys.

To outline the deviations when handing over the results to the company, we developed a new type of visualization called customer journey heatmaps. A running bar underneath the customer journey indicates to which degree the journey was compliant with the planned journey. We used "traffic lights" to visualize

sequences with virtually no deviation (high compliance = green color), some deviations (medium compliance = yellow color), and major deviations (low compliance = red color). It is evident from Figure 4 that there were major problems with the compliance of the planned journey in Figure 2.

### Discussion

In this industry case we observed a major gap between the company's stated ambition of how they wanted the customer to perceive their services, and how the customers *actually* experienced their services. This mainly concerned the company's inability to deliver on the customers' expectations related to efficiency and quality. There were also gaps in relation to situations



**Figure 4.** Customer journey heatmap for indicating compliance with the planned journey.

where the customer needed assistance or wanted to make significant changes to the current service offer.

In order to present the findings and recommendations to senior management, we accumulated the findings from both staff and customer interviews into detailed heatmaps for all the planned journeys. The heatmaps were perceived as intuitive and easy to understand by the senior management and seemed to work well as an internal call-for-action.

Our conclusion was that the company's challenges in meeting the customers' expectations were rooted in overreaching relations and could not be fully solved by focusing on individual transactions or functions. We therefore recommended the company to gradually adopt a journey perspective to detect sub-optimal practices and redesign their service processes to build customer trust [5]. The following areas and approaches was recommended for the company:

- 1. Implement a journey perspective:** To establish a common cross-functional view and understanding of the planned customer journeys.
- 2. Human capital:** To review roles and responsibility, both on departmental and individual level, and to secure common understanding of responsibility across customer journeys.
- 3. Structure Capital:** To establish routines and processes that support the planned customer journeys, and to implement specific methods to secure quality in all efforts made to fulfill the customer journeys; e.g. work force management to enhance the workforce utilization.

Several improvement effort was initiated in the company as a result of the case study to meet current and future customer demands. Changes in organization structure and culture were also initiated, including an appreciation of the HR function, a revitalization of the company's values and culture, a reorganization of the company's back office functions, a reorganization of the company's customer service and it's case flow, and a mapping and optimization of the roles and responsibilities and connected routines to support the planned customer journeys.

### Conclusion

The company has concluded that optimizing their customer journey is of great commercial value, and thus made this effort one of four main strategic focus areas. As a direct outcome of the project the company has established ownership for the key customer journeys, made a redesign of processes and routines to

support the defined customer journeys and established a quality assurance system to assure compliance. The company has reported that they are experiencing shortened response time on customer enquiries, improved delivery precision on cross functional projects and heightened customer satisfaction as a result of these efforts. Through the project all middle and top management in the company has been trained in understanding CJML and are continuing to utilize this as a tool to further review and improve their customer experience.

### Acknowledgements

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