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How Does the Crowdsourcing Experience Impact Participants' Engagement? An Empirical Illustration

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A largely neglected aspect in crowdsourcing research is the “Crowdsourcing Experience” itself, which every crowdsourcee is necessarily exposed to throughout the IT-mediated interaction process, potentially stimulating engagement towards the crowdsourcer. Hence, the crowdsourcees' engagement process is conceptualized and illustrated with empirical findings from a pilot case. It exemplifies that crowdsourcing has the potential to generate high levels of attitudinal and behavioral engagement, depending on prior experiences and perceived cognitions and emotions. Related stimuli characteristics are identified, which serve as a first indication of the foundations of the engagement process. This study offers IS-researchers first insights on the so far under-researched topic of IT-enabled engagement processes between individuals and entities.

Keywords: Crowdsourcing, Crowdsourcing Experience, Customer Engagement, Engagement Process

1 Introduction

Crowdsourcing is an emerging global trend, which 85 percent of the top hundred global brands try to take advantage of [1]. It broadly defines a participative, IT-mediated activity in which a given entity proposes a task to a crowd to create mutual benefit [2, 3]. While there are several functions of crowdsourcing, such as design and innovation, or software development and testing [4], it seems as if crowdsourcers' primary attention is currently paid to managing contributions rather than the crowd, its needs and desires. This is also reflected by research in the field of crowdsourcing, which is dominated by studies assessing crowdsourcing mostly from a crowdsourcer's perspective. However, looking at successful crowdsourcing initiatives, as *My Starbucks Idea* or the *SBB Mobile Preview Community*, in terms of its huge crowds and intense participation, it can be assumed that value is not only created by absorbing knowledge and ideas.

The meaning of value and the process of value creation are rapidly shifting from a product- and firm-centric view to an experience-based view, putting the subject in the center [5]. This can be transferred to co-creation activities itself, in which experiences

are created, too. Hence, this paper argues that a largely neglected aspect in crowdsourcing research is the here called “*Crowdsourcing Experience*” itself, which every crowdsourcee is necessarily exposed to throughout the IT-mediated interaction process. This disregard may come with a price. Initiators not only risk to lose valuable contributors during or after the interaction due to perceived negative experiences, but also their reputation. A famous example is given by *Pril’s crowdsourcing flop*, in which an undesirable experience by Henkel caused a public PR-disaster [6]. Additionally, initiators miss a promising opportunity to generate crowdsourcers a unique experience, thereby stimulating overall engagement towards the crowdsourcer. This can create additional value, e.g., in form of positive word of mouth and enhanced brand value, increasing in relevance if the crowd consists of (potential) customers and end-users.

First authors recognized the need for an experience-based perspective on crowdsourcing and called for research [4, 7, 8]. However, no existing study takes a process perspective to systematically assess the end-to-end crowdsourcee’s experience. Yet, this is necessary to understand how and why crowdsourcers engage, from a cognitive, emotional and behavioral perspective. To fill this gap, the engagement process is conceptualized, illustrated, and refined with empirical observations from a case, to approach the following question: How does the *Crowdsourcing Experience* impact engagement throughout the IT-enabled interaction process?

First an overview of the research field of crowdsourcing and customer engagement is provided and relevant concepts derived. Then, an empirical illustration is provided and a refined concept discussed. Lastly, relevant research contributions are presented.

2 Conceptual and Theoretical Background

2.1 Crowdsourcing

The fundamental idea of crowdsourcing is that a crowdsourcer (e.g., a company) proposes to an undefined group of contributors (e.g., individuals), henceforth called crowdsourcers, the voluntary undertaking of a task presented in an open call [2]. The ensuing interaction process unfolds over IT-based crowdsourcing platforms [2, 3]. Crowdsourcers can set up their own crowdsourcing platform and processes (e.g., My Starbucks Idea), or they can refer to intermediaries, such as Innocentive or Testbirds that provide a technical infrastructure and access to a crowd. Some offer additional services such as task specification, crowd acquisition, and evaluation of results [9]. Crowdsourcer and crowdsourcers engage in the participative, IT-mediated interaction process to create mutual benefit [3]. For crowdsourcers, this benefit may involve solving problems that cannot be satisfactorily solved in-house, but also enhanced brand visibility [10]. For crowdsourcers, the benefit may be of economic nature (e.g., remuneration) or other needs are satisfied, like social recognition or skill development. Thus, value can be produced by outcomes (i.e., instrumental value) and preceding processes (i.e., experiential value). To better understand the mutual benefits of crowdsourcing, some authors have emphasized the need for researching crowdsourcing from an experience-based perspective [4, 7, 8]. First articles reveal insights on: initial

crowdsourcing user engagement, defined as the quality of effort [11]; drivers of sustained participation in micro-task oriented crowdsourcing [12]; an behavioral engagement index for crowdsourcing [13]; crowdsourcee's attitude towards the platform and design choices [14]; and the impact of crowdsourcing on affective commitment in collaborative crowdsourcing projects [15]. It seems that each of those studies either focus on a specific crowdsourcing phase in the interaction process or solely on the experience outcome, from a behavioral or attitudinal perspective. None of those studies take a holistic process perspective to systematically assess the end-to-end crowdsourcees' experience, including pre- and post-participation experiences. Yet, this is necessary to understand how and why crowdsourcees engage for value co-creation. This paper takes a closer look at the concept and process of customer engagement from the relationship marketing literature and applies it to crowdsourcing.

2.2 The Concept and Process of Customer Engagement

Customer engagement (CE) is defined as a psychological state that occurs by virtue of interactive, co-creative customer experiences with a focal agent [16]. Customer experience is the internal and subjective perception of customers' direct and indirect interactions with a firm. The resulting engagement state develops through a dynamic, iterative process that co-creates value between the engagement subject (e.g., customer) and object (e.g., company) [17]. First authors conceptualized the general engagement process of customers [18, 19]. A simplified illustration is given in Figure 1.

According to existing conceptualizations, the psychological state encompasses various combinations of cognitive, emotional, and behavioral dimensions, dependent on perceived stimuli and prior experiences. The cognitive dimension can be interpreted as a more passive state of immersion and absorption or a more active state of cognitive processing to expedite comprehension [20]. The emotional dimension relates to the customer's feelings activated by an experience. Additionally, a behavioral response related to a specific stimulus may be expressed. Addressed dimensions regarding each perceived stimulus are evaluated by the subject and an intermediate state is generated, happening unconsciously. The literature considers satisfaction, delight, involvement and trust as intermediate states that foster the development of engagement, which is defined as a specific type of commitment towards the engagement object [18, 19].

Satisfaction is generally seen as a preliminary state. Alone, it may not result in a desired behavior (i.e., repeat consumption or referral) as expectations are only confirmed according to expectation-disconfirmation theory [21]. If one repeats a satisfying interaction due to perceived attribute-based utility, missing alternatives or switching costs, a so called calculative commitment may develop between the engagement subject and object [19]. Commitment is associated with a specific attitudinal position [19], while calculative relates to rational reasoning. However, those rational bonds may be dissolved easily and are of limited value for a company [18].

Hence, additionally an emotional bond is desired, also called affective commitment. It illustrates a customer's psychological closeness to a focal agent and is positively related to referral and word of mouth (WOM) [18, 19]. It is expressed as a holistic or aggregate judgment, independently from its functional attributes. A feeling of

involvement or trust, due to increased familiarity and precise expectations towards the engagement object, is known as a driver [19]. While involvement is described as a feeling of personal relevance and importance, trust is a customer's assumption that a focal agent is able to respond to his needs and has his best interest at heart [22]. Nevertheless, a delightful incident may lead to affective commitment right away, even if the engagement subject is less familiar with the engagement object and relies on a more attribute-based evaluation [18, 19]. Customer delight is defined as a combination of pleasure, joy and elation as well as unexpected levels of arousal or surprise [23].

When both forms of commitment develop throughout the interaction process, customer and company are in an enduring relational exchange with strong emotional bonds [18]. This desired psychological engagement state is related to direct (i.e., repeat consumption) as well as indirect behavioral responses towards the engagement object (e.g., WOM, referral behavior), reflecting the customer engagement value [24].

It can be concluded that familiarity (i.e., prior experiences) with an engagement object is an input factor in the process of engagement, while the experience evaluation constitute the psychological process, leading to a state of calculative and/or affective commitment and behavioral responses as process outcomes. Presuming a feeling of satisfaction, it is supposed that a sense of delight, involvement, and trust operate as drivers of engagement in a customer-company interaction. Active participation in the creation of an offering is widely assumed as a central antecedent [16, 17, 24, 25].

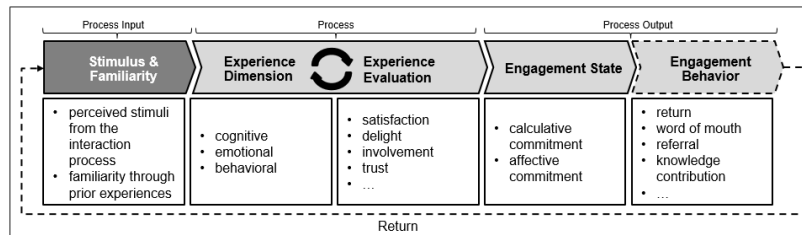


Figure 1. Conceptualized Engagement Process (own illustration)

3 Towards an Engagement Theory of the Crowdsourcing Experience

Independent of the crowdsourcer's original intention, performing a crowdsourcing initiative creates an experience that may foster engagement among crowdsourcees towards the crowdsourcer. The *Crowdsourcing Experience* in this paper is defined as a crowdsourcee's internal and subjective perception of the end-to-end, IT-mediated interaction process, resulting in a psychological state. It is an online experience, driven by several stimuli over one or more virtual channels. Perceived stimuli can be found in the pre-participation (e.g., invitation), participation (e.g., task), and post-participation (e.g., payment) phase. Due to its participative character, the underlying assumption is that crowdsourcing generally has the potential to generate high levels of engagement. Depending on the specific set up of the initiative, crowdsourcees (i.e., the engagement

subject) may engage with the crowdsourcer directly or via an intermediary and with other crowdsourcees (i.e., the engagement objects). They can have varying degrees of familiarity concerning the objects (e.g., prior crowdsourcing- or customer experiences), influencing their expectations and experience evaluation. Henceforth, *Crowdsourcee Engagement* is conceptualized as a psychological process that models the underlying mechanisms by which a crowdsourcee develops calculative and affective commitment based on perceived stimuli and prior experiences, resulting in behavioral value-contributions for the crowdsourcer. The unfolding IT-mediated interaction process comprises a set of diverse stimuli, potentially addressing both, the cognitive and emotional experience dimension. The CE literature considers satisfaction, delight, involvement and trust as intermediate states. To explain potential drivers in the context of crowdsourcing, different perspectives can be taken, as crowdsourcees may not only be seen as (potential) customers and influencers, but also take the role of a platform user, worker, and a group or community member (i.e., the crowd).

From an IS-perspective, a system's characteristics, quality and performance may generate user involvement, delight, and trust. For example, characteristics as novelty, variety, aesthetics (affective or sensory appeal), and fun are related to perceived delight [26, 27]. In crowdsourcing, this may refer to an attractive and fun-providing crowdsourcing platform or an appealing virtual object, which is in the center of the task (e.g., a website). According to organizational behavior (OB) research, specific task characteristics, one's identity with it, and rewards may lead to job or task involvement, trust or delight [28]. For example, a good task-person fit and a crowdsourcee's enthusiasm about a task may be related to involvement and delight. Lastly, according to community research, the identification with the crowd may stimulate a sense of involvement throughout the process [29]. Next to these, another driver of engagement is expected to operate in the case of crowdsourcing: empowerment. Ulrich [30] argues that customer empowerment leads to stronger commitment, if additional information about the company can be gained and response is volitional, irreversible, and public. Empowerment positively effects demand and WOM, due to a sense of psychological ownership [31]. In OB-research, it relates to a sense of control, impact, meaning, and self-efficacy [32], which may be stimulated e.g., with a specific task.

Subsequently, out of the intermediate states an overall engagement state arises. If satisfaction is achieved and the crowdsourcee perceives clear utility through participation, a form of calculative commitment towards the crowdsourcer may be gained. If additionally to satisfaction, a sense of delight, involvement, trust, and/or empowerment arises throughout the interaction process, affective commitment may be developed. Resulting direct and indirect behavioral value contributions towards the crowdsourcer may refer to: a) repeat participation; b) virtual or direct WOM; c) referral behavior; d) further voluntary knowledge or feedback contributions, exceeding the scope of the original task; as well as e) consumption activities (buying/ using something from the crowdsourcer). Calculative commitment is related to repeat participation (a) and affective commitment additionally to indirect contributions (b-e).

By assessing the engagement process in the context of an exemplary crowdsourcing case, those relationships will be illustrated and successful patterns of mechanisms and related stimuli characteristics extracted to refine and extend derived knowledge.

4 An Empirical Illustration

Each crowdsourcing initiative can offer crowdsourcees a unique IT-mediated interaction process, consisting of many consecutive and interrelated experience-driving stimuli. This section illustrates how the concept and process of engagement can be useful for interpreting the findings of a qualitative study that investigated the perceived *Crowdsourcing Experience* of participants in a crowdsourcing project, initiated by a leading insurance company from Switzerland. This approach is accepted by recognized outlets and a successful example is provided by Leonardi [33].

4.1 Case Description

In 2015, InsureCorp (name changed) decided to renew its digital communication channels with a “mobile first” strategy. To apply a user-centered approach for developing its new mobile web application, the company decided to use crowdsourcing with potential end-users. Crowdsourcees were offered to test and feedback the web app’s interface and report on functional bugs, usability and provide ideas. They had to go through realistic test scenarios to explore the web app. In return, they were offered a fixed monetary reward. InsureCorp chose to cooperate with a crowdsourcing intermediary, responsible for acquiring the crowd, providing the platform, evaluating contributions, and handling the payment process. They conducted three self-contained crowdsourcing projects (August 2015; January and June 2016), each with a duration of five days, to individually advance parts of the web app with around twenty crowdsourcees per iteration. Each project included the acquisition of a suitable crowd, a definite task, and a closing phase. The last project was assessed in this study.

The case of InsureCorp was chosen because it illustrates a common case in this field and incorporates all characteristics of crowdsourcing, as a concrete task is proposed via an open call through a platform for a specified reward. The goal was to target a diverse crowd, representing potential end-users. As the company developed a certain maturity over iterations, it is expected that in the last one exceptional problems, unusually influencing the *Crowdsourcing Experience*, could be reduced. The crowd was relatively homogenous regarding cultural background, familiarity with the activity, and financial situation, which enabled a comparison of experiences and engagement processes. Lastly, the use of intermediaries is becoming increasingly common [9]. Hence, it could be explored in how far the engagement of crowdsourcees developed differently towards the crowdsourcer, as the central point of interest, and the intermediary.

4.2 Data Collection and Analysis

First, to understand the intended *Crowdsourcing Experience*, three semi-structured interviews and a focus group discussion with the crowdsourcer and intermediary were conducted. Also, to study crowdsourcees’ behavior, data concerning the time spent on the platform and with the web app was tracked. Contributions were analyzed in terms of its length (word count) and level of detail (i.e., under-/ over-fulfillment of task). Demographic information and amount of previous activities were collected from the

platform. Finally, seven in-depth, semi-structured interviews (60-90 minutes) with crowdsourcees were conducted to decipher the crowdsourcee’s experience along the process. A slightly adapted version of the novel approach from consumer behavior, called “Sequential Incident Laddering Technique” (SILT), was used [34]. Respondents were first asked to recall all stimuli (“critical incidents”) from the crowdsourcing interaction process. Subsequently, the interviewer asked simple “what”, “why”, “how” questions to establish the link between a stimulus and crowdsourcee’s (a) cognitive and emotional perceptions; (b) experience evaluation (intermediate state); (c) and behavioral responses (“laddering technique”). In a last interview step, crowdsourcee’s final commitment and (planned) engagement behavior towards the crowdsourcer and intermediary was captured. As commitment is also described as an attitudinal judgment, interviewees were asked to describe their attitude to receive insights regarding their emotional and rational disposition. To avoid a recall bias [35] crowdsourcees in this study were interviewed two to seven days after participation. For reasons of better comparability, seven crowdsourcees with some crowdsourcing familiarity were selected, to avoid interviewing overly excited or bored individuals. The interviews were transcribed and assessed, together with the other data sources, by applying qualitative content analysis [36, 37]. A category system based on the theoretical framework of the engagement process was developed and collected data was coded along stimuli: perceived experience dimensions; related engagement object; experience evaluations; resulting attitude; and (planned) behavior. To allow for the identification of new categories and related stimuli characteristics, the system was iteratively adapted. Two researchers independently coded the data by allocating direct and indirect statements to the categories (interpretive approach) and subsequently discussed findings. Insights were used to illustrate how engagement developed for those crowdsourcees throughout the process. The purpose was not to test the framework, but rather to illustrate its use for understanding the potential engagement value of a crowdsourcing initiative.

4.3 The Crowdsourcing Interaction Process of InsureCorp

First, potential experience-driving stimuli along the interaction process were visualized based on the results of the interviews with responsible project managers. The process was then collaboratively discussed and refined in a focus group interview. The result is illustrated in Figure 2.

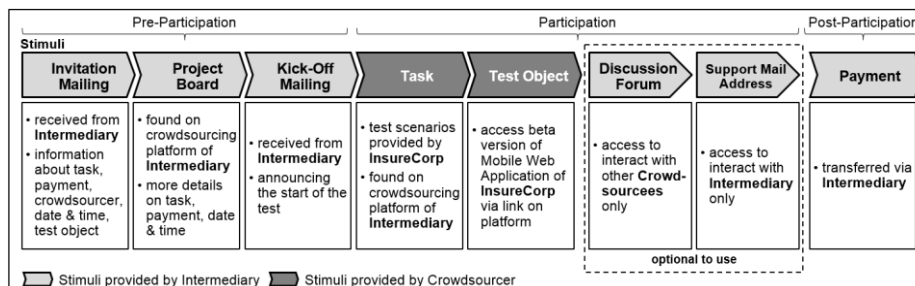


Figure 2. Stimuli along the Crowdsourcing Interaction Process of InsureCorp

It includes two communication channels: email and the crowdsourcing platform of the intermediary. Three potential engagement objects could be identified: crowdsourcer, intermediary, and other crowdsources. Five stimuli are solely designed, managed, and communicated by the intermediary to the crowd, while two stimuli (task, test object) are designed and managed by the crowdsourcer. One stimulus (discussion forum) is provided by the intermediary but triggers the interaction among crowdsources only.

4.4 Assessment of the Crowdsourcing Experience

By looking at the described attitudes and (planned) behavior, it is observed that different engagement states among crowdsources developed, although the overall *Crowdsourcing Experience* was evaluated to be satisfying for all crowdsources. A more in-depth analysis of the underlying processes was necessary to identify mechanisms that caused psychological and behavioral engagement outcomes.

The case data shows that the engagement development process throughout the interaction process took several forms among crowdsources, depending on prior familiarity with the engagement objects and stimuli perceptions. All previously identified stimuli were generally perceived and mostly experienced by interviewed crowdsources, shaping their *Crowdsourcing Experience*, except from the discussion board. That excludes “other crowdsources” as a potential engagement object. As expected, crowdsources related the stimuli task and test object directly to the crowdsourcer and the rest to the intermediary. Stimuli, related to the intermediary, lead to 80 percent cognitive statements and 54 percent were evaluated to be purely satisfying, while 25 percent were additionally evaluated as trust-enhancing. Stimuli related to the crowdsourcer lead to around 60 percent cognitive statements and only 17 percent were evaluated to be purely satisfying, while even 73 percent were additionally evaluated as delighting, involving, or empowering (see appendix for more details). An integrated framework, incorporating theoretical knowledge from the engagement process (Figure 1) with findings from the assessment of InsureCorp’s crowdsourcing interaction process (Figure 2), is illustrated in Figure 3.

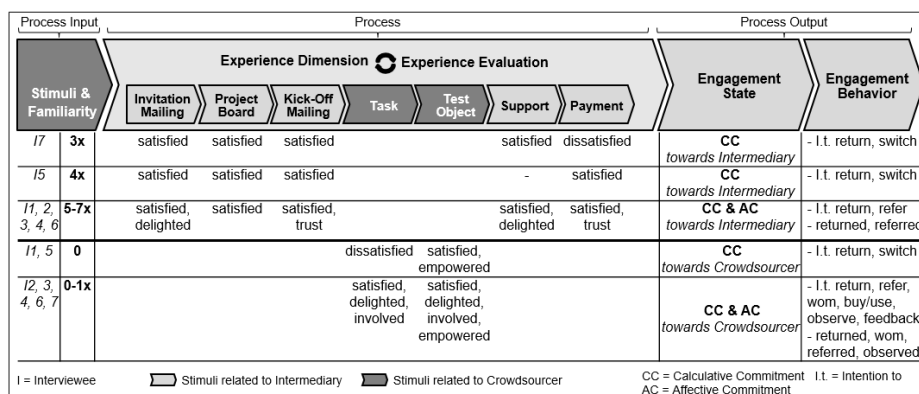


Figure 3. Integrated Framework of the Crowdsourcer’s Engagement Process

Different process patterns were identified that led to affective commitment towards the crowdsourcer and intermediary. First, those five interviewed crowdsourcers (I2, 3, 4, 6, 7), who evaluated the stimuli task and test object as delightful, involving, and/ or empowering, developed a more emotionally based commitment towards the crowdsourcer, leading to more diverse behavioral responses than the other two. Delight arose due to a feeling of surprise, pleasure, fun and enjoyment related to the task and test object (e.g., I2: “it was fun to explore the whole web app and record my feedback in a video”; I7: “those scenarios were new to me, I felt like a real customer”). A feeling of challenge, inspiration, stimulation, and need for solving the task was mentioned when crowdsourcers described themselves as being involved (e.g., I3: “I couldn’t find it but I really wanted to solve that task, so I tested the whole application”; I6: “the app design was very inspiring, it was easy to get caught up by the task”). Those, who felt as being a part of the product-development process and enjoyed having impact on the test object, described the stimulus as empowering (e.g., I2: “it feels good to give feedback for a product that is still in development”). Crowdsourcers, who described those emotional perceptions and experience evaluations, stated that their attitude towards the crowdsourcer changed somewhat, as they perceived InsureCorp as more innovative, modern, open-minded, collaborative, customer-centric, and/or supportive after participation. They also mentioned an improved brand image and a strengthened relationship to the crowdsourcer (e.g., I4: “now, InsureCorp feels more like a partner for me”; I2: “I did not expect that from InsureCorp, seems like a cool company”). This indicates a sign of a stronger form of affective commitment towards the crowdsourcer. While all interviewed crowdsourcers stated to be generally willing to return for repeat participation based on perceived utility, those that mentioned to be delighted, empowered and/ or involved concerning task and test object, were additionally intended to refer the crowdsourcer, conduct of WOM, and buy or use a service of the crowdsourcer due to their positive impression after participation. Some were also interested in observing the development of the test object and providing voluntarily, additional feedback and ideas to the crowdsourcer after the project’s official end. Data showed that involved crowdsourcers spent more time on the platform and with the test object in comparison to others (1.5 to 2 times as long). Contribution-analysis revealed that they did more than was expected in the task (over-fulfillment) and gave more detailed feedback in terms of word count (1.25 to 1.6 time as much). In comparison, those that perceived only satisfaction or even dissatisfaction regarding the task and test object mentioned no intentions for referral, WOM, consumption or observation towards the crowdsourcer and contributed less in terms of feedback.

Second, those five crowdsourcers (I1, 2, 3, 4, 6), who evaluated stimuli related to the intermediary mainly as satisfying but expressed that they developed some trust into the intermediary throughout the process, developed some affective commitment, resulting in more diverse behavioral value contributions for the intermediary. Satisfaction with stimuli as the invitation mailing, project board, and support services, was mainly described through cognitive expressions, relating to the characteristics of the information provided, the platform, or the response time. A feeling of trust towards the intermediary was mentioned in relation to the kick off mailing (e.g., I4: “I felt relieved, when the reminder arrived. I know, I can rely on their processes”), and the

compensation (e.g., I2: “I don’t know what others pay, but I assume they are fair”; I1: “the process could be easier, but I’m sure they’ll find a better solution soon”). Negative cognitions of crowdsourcees, who mentioned trust into the intermediary, resulted not in negative emotional perceptions and evaluations. In comparison, other crowdsourcees expressed annoyance in response, resulting in dissatisfaction. Although crowdsourcees described their attitude towards the intermediary mostly rational and used terms as responsive, fair, reliable, effective and well-organized, those that sensed trust throughout the process, used more emotional expressions for the intermediary (e.g., I4: “it was fun to work with them”; I6: “they try their best to make our job easier”) and were willing to refer (or even already referred) the intermediary to friends or colleagues. In comparison, those that mentioned only satisfaction or even some dissatisfaction without showing signs of trust, were only intended to return due to rational reasons of perceived utility (e.g., compensation and skill development), but mentioned to be willing to switch, if another crowdsourcing opportunity arises (e.g., I5: “the intermediary is for me more a means to an end”; I7: “I don’t have any emotional relationship with it”). Thus, only a calculative commitment can be assumed.

The difference between the development of affective commitment towards the crowdsourcer and intermediary may be explained due to two reasons. On the one hand, prior familiarity may play a role. All interviewed crowdsourcees were already familiar with the intermediary (three to seven prior projects) and those that developed trust participated in five to seven other crowdsourcing projects before. Hence, they had quite precise knowledge and expectations regarding the general interaction points, designed and managed by the intermediary. Instead of being easily surprised (i.e., delighted), they rather valued repetitions and dependability, which enhanced their trust. In comparison, familiarity with the crowdsourcer was much lower. Only two crowdsourcees participated in one of the previous iterations. Thus, most were more sensitive for positive surprises. On the other hand, the type of stimuli, related to the intermediary were much less involving or empowering and more of an administrative character, than the ones related to the crowdsourcer. The task and test object allow for intense interaction with the crowdsourcer than a rather transactional stimulus, as an informative mail or payment process. From cognitive and emotional stimuli perceptions and evaluations, relevant characteristics could be identified (see Table 1). Derived characteristics illustrate the foundations of the crowdsourcee’s engagement process.

Table 1. Perceived Stimuli Characteristics

Intermediate State	Related Stimuli Characteristics (as perceived by interviewed Crowdsourcees)
Satisfaction	(a) complete, concrete, understandable information and instructions, (b) clear in/out-of-scope of task, (c) easy to use crowdsourcing-platform, (d) easy access to test-object (e.g., easy registration, technol. prerequisites), (e) quick response time for support, (f) monetary compensation, (g) quick compensation transaction
Delight	(a) personal style of contact (e.g., personal address, real contact person as sender) (b) personal/direct communication channel for invitation/support (e.g., email/ phone), (c) new/innovative type of task (e.g., video feedback), (d) explorative task (e.g., usability testing), (e) fun-providing test scenarios, (f) new/ innovative design of test object

Involvement	(a) challenging task, (b) stimulating and inspiring design of test-object/ information provided, (c) realistic test scenarios (e.g., put them in the position of a real customer)
Trust	(a) process transparency (e.g., comprehensive information through reminder mails, process details on platform, regular updates), (b) fair compensation (in terms of time and effort), (c) process improvement-attempts/ actions (e.g., news announcing changes)
Empowerment	(a) having impact on whole test object (e.g., explorative task, broad scope of task), (b) changes/ developments in test object at project-end (e.g., feedback report)

5 Discussion

This paper began with the suggestion to take a holistic process perspective for systematically assessing the end-to-end *Crowdsourcing Experience* to understand how and why crowdsourcers actually engage for value co-creation. Therefore, in analogy to the CE-process, a theoretical engagement process for the case of crowdsourcing was derived and its use illustrated with a case.

The underlying assumption was that crowdsourcing generally has the potential to generate high levels of engagement due to its participative character [16, 17, 24, 25]. The attitudinal and behavioral responses by participants in the case illustrated that emotional as well as rational bonds developed towards the crowdsourcer and intermediary, leading to diverse behavioral value-contributions, which exceeded repeat interactions. The case also illustrated that the underlying process of engagement included the emotional response to specific stimuli, which led to delight, involvement, empowerment and/or trust, fostering affective commitment and (planned) indirect value contributions (i.e., WOM, referral, further knowledge contributions, observations, consumption activities). Next to those illustrations of the theoretical concept, the case helped to extend and refine knowledge concerning the underlying mechanisms of the engagement process. First of all, it could be shown that engagement developed differently towards the crowdsourcer and intermediary throughout the process. Hence, participants were able to differentiate stimuli-related experiences and draw separate conclusions. It further showed that stimuli evaluations may depend on prior familiarity with the engagement object and its interactive character. Those rather administrative stimuli, appearing in the pre- and post-participation phase, which were quite familiar for most crowdsourcers, led to mostly satisfaction and trust. In comparison, those rather interactive stimuli in the participation phase, which differed from project to project (i.e., new types of tasks, other test objects), fostered delight, involvement and empowerment, if designed properly (Table 1).

This also relates to the different roles of crowdsourcers, influencing the perception of stimuli and its impact on engagement. It was discussed that from an IS-perspective platform quality and characteristics of the test object may play a role for engagement [26, 27]. The case illustrated that the crowdsourcing platform arose no emotional responses. This might be due to its transactional character and consistency throughout interactions. Here, the goal should be to rather strive for satisfaction and potentially enhance trust into the technology in the long term. The test object however, due to its

hedonistic character, led to several emotional responses and arose delight and involvement, leading to longer interaction times and even the desire for further knowledge contributions and observations after participation. It seems to be an important factor that potentially drives affective commitment. Furthermore, from an OB-perspective it was assumed that the task and reward may stimulate emotional responses [28]. In this case, the monetary reward had rather a utilitarian purpose. However, perceived fairness and reliability regarding the transaction process fostered trust over repeat interactions. Moreover, the tasks and test scenarios stimulated delight and involvement due to perceived fun and challenge, which even fostered task over-fulfillment and a more intense interaction on the crowdsourcing platform. Besides, some crowdsourcees mentioned to enjoy having impact on the test object. Thus, perceived relevance of the test object and task may enhance sensed empowerment and eventually affective commitment, as it is predicted by the theory of psychological ownership [32]. From a marketing perspective, the case showed that even (planned) consumption activities could be stimulated due to positive experiences with the task and test object, fostering a positive attitude towards the crowdsourcer and its products. Consequently, from a managerial perspective, it would be effective to design stimuli that foster satisfaction and trust in the pre- and post-participation phase; and delight, involvement and empowerment in the participation phase to enhance engagement.

Nevertheless, those empirical observations are not sufficient to prove relationships, as a single crowdsourcing case was assessed with a limited number of interviews. Yet, the illustrative case can be seen as a pilot study, suggesting a promising methodology and valuable first insights. For future research it is recommended to conduct multiple case studies, including different types of crowdsourcing to identify more engagement-driving mechanisms, patterns, and related stimuli characteristics from a process perspective (e.g., collaborative vs. non-collaborative, paid vs. unpaid, complex vs. micro-tasks, etc.). Additionally, to verify relationships with quantitative research, a survey approach may be applied, which tests for arising drivers and its impact on affective commitment and behavior. Pre- and post-participating engagement states may be compared to verify effects. Besides, experiments with manipulated stimuli may be used to explain concrete effects on engagement outcomes. The provided framework in Figure 4, can serve as a base for future research.

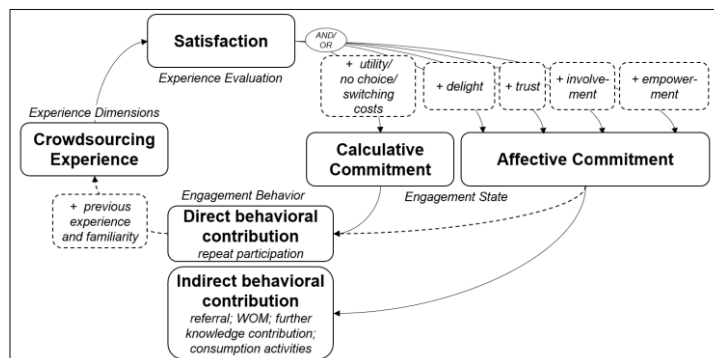


Figure 4. Research Model of the Crowdsourcer's Engagement Process

6 Conclusion

Applying the engagement concept and process to the case of crowdsourcing and deploying an adapted form of SILT as a unique measuring approach is a first step in offering researchers an experience-based perspective on crowdsourcing. The integration of those rather new research fields has the advantage that valuable knowledge for both can be derived. Crowdsourcing facilitates the connectivity of people, organizations and societies via a technological platform. In the center of this research is the IT-mediated *Crowdsourcing Experience*, generated through experience-driving stimuli. Hence, this research contributes to the IS literature, delivering insights on the so far under-researched concept of IT-enabled engagement processes between individuals and entities, from a psychological and behavioral perspective. Additionally, the concept of engagement is considered as a new perspective in relationship marketing research. By illustrating the engagement process with a first case, the aim is to support the progress of the engagement concept from an emergent theme to a more mature construct. Nevertheless, developing a better understanding of the currently realized *Crowdsourcing Experience* and the underlying mechanisms of the engagement process may help practitioners to improve the interaction process and identify engagement opportunities.

Appendix

Findings from the Interview-Assessment

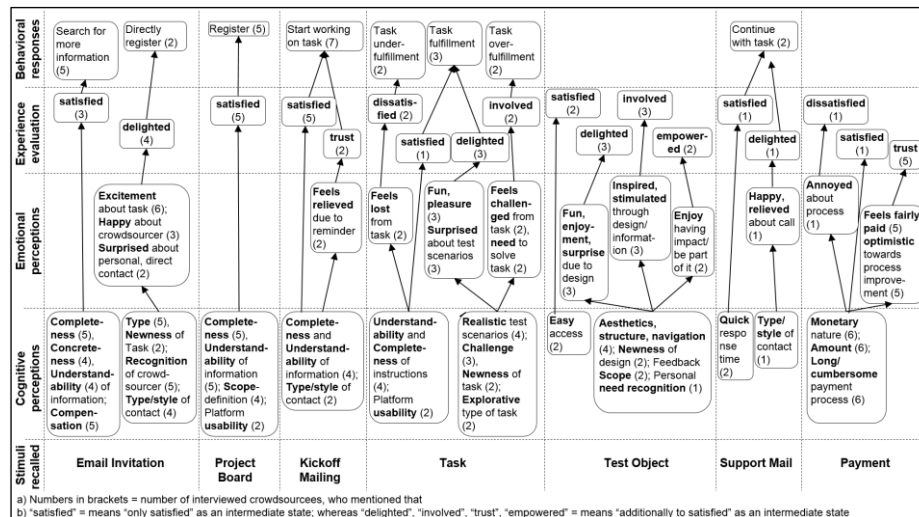


Figure A1. Crowdsourcing Experience Analysis based on SILT-Approach

References

1. Owyang, J.: The state of crowdsourcing in 2015. *Crowd Companies™* (2015)
2. Blohm, I., Leimeister, J.M., Krcmar, H.: Crowdsourcing: How to Benefit from (Too) Many Great Ideas. *MIS Quarterly Executive* 12, 199-211 (2013)
3. Estellés-Arolas, E., González-Ladrón-De-Guevara, F.: Towards an integrated crowdsourcing definition. *Journal of Information Science* 38, 189-200 (2012)
4. Vuković, M.: Crowdsourcing for enterprises. In: *Services-I, 2009 World Conference on*, pp. 686-692. IEEE, (2009)
5. Prahalad, C.K., Ramaswamy, V.: Co-creation experiences: The next practice in value creation. *Journal of interactive marketing* 18, 5-14 (2004)
6. Gassmann, O., Winterhalter, S., Wecht, C.H.: Crowdsourcing: Tipps, damit es gelingt. *IO Management* 44-50 (2013)
7. Füller, J., Mühlbacher, H., Matzler, K., Jawecki, G.: Consumer empowerment through internet-based co-creation. *Journal of Management Information Systems* 26, 71-102 (2009)
8. Pedersen, J., Kocsis, D., Tripathi, A., Tarrell, A., Weerakoon, A., Tahmasbi, N., Xiong, J., Deng, W., Oh, O., De Vreede, G.-J.: Conceptual foundations of crowdsourcing: A review of IS research. In: *System Sciences (HICSS), 2013 46th Hawaii International Conference on*, pp. 579-588. IEEE, (2013)
9. Zogaj, S., Bretschneider, U., Leimeister, J.M.: Managing crowdsourced software testing: a case study based insight on the challenges of a crowdsourcing intermediary. *Journal of Business Economics* 84, 375-405 (2014)
10. Ye, H.J., Kankanhalli, A.: Investigating the antecedents of organizational task crowdsourcing. *Information & Management* 52, 98-110 (2015)
11. De Vreede, T., Nguyen, C., De Vreede, G.-J., Boughzala, I., Oh, O., Reiter-Palmon, R.: A theoretical model of user engagement in crowdsourcing. *Collaboration and Technology*, pp. 94-109. Springer (2013)
12. Sun, Y., Fang, Y., Lim, K.H.: Understanding sustained participation in transactional virtual communities. *Decision Support Systems* 53, 12-22 (2012)
13. Nguyen, C., Tahmasbi, N., de Vreede, T., de Vreede, G.-J., Oh, O., Reiter-Palmon, R.: Participant Engagement in Community Crowdsourcing. Paper accepted to be presented at the European Conference of Information Systems, Münster, Germany, (2015)
14. Riedl, C., Blohm, I., Leimeister, J.M., Krcmar, H.: The effect of rating scales on decision quality and user attitudes in online innovation communities. *International Journal of Electronic Commerce* 17, 7-36 (2013)
15. Schulten, M.B., Schaefer, F.: Affective commitment and customer loyalty in crowdsourcing: antecedents, interdependencies, and practical implications. *International Review of Retail, Distribution & Consumer Research* 25, 516-528 (2015)
16. Brodie, R.J., Hollebeek, L.D., Juric, B., Ilic, A.: Customer engagement: conceptual domain, fundamental propositions, and implications for research. *Journal of Service Research* 1094670511411703 (2011)
17. Brodie, R.J., Ilic, A., Juric, B., Hollebeek, L.: Consumer engagement in a virtual brand community: An exploratory analysis. *Journal of Business Research* 66, 105-114 (2013)
18. Sashi, C.: Customer engagement, buyer-seller relationships, and social media. *Management decision* 50, 253-272 (2012)

19. Bowden, J.L.-H.: The process of customer engagement: A conceptual framework. *Journal of Marketing Theory and Practice* 17, 63-74 (2009)
20. Mollen, A., Wilson, H.: Engagement, telepresence and interactivity in online consumer experience: Reconciling scholastic and managerial perspectives. *Journal of business research* 63, 919-925 (2010)
21. Oliver, R.L.: Effect of expectation and disconfirmation on postexposure product evaluations: An alternative interpretation. *Journal of applied psychology* 62, 480 (1977)
22. Oliva, T.A., Oliver, R.L., Bearden, W.O.: The relationships among consumer satisfaction, involvement, and product performance: A catastrophe theory application. *Behavioral Science* 40, 104-132 (1995)
23. Rust, R.T., Oliver, R.L.: Should we delight the customer? *Journal of the Academy of Marketing Science* 28, 86-94 (2000)
24. Kumar, V., Aksoy, L., Donkers, B., Venkatesan, R., Wiesel, T., Tillmanns, S.: Undervalued or overvalued customers: capturing total customer engagement value. *Journal of Service Research* 13, 297-310 (2010)
25. Vivek, S.D., Beatty, S.E., Morgan, R.M.: Customer engagement: Exploring customer relationships beyond purchase. *Journal of Marketing Theory and Practice* 20, 122-146 (2012)
26. Attfield, S., Kazai, G., Lalmas, M., Piwowarski, B.: Towards a science of user engagement (position paper). In: *WSDM Workshop on User Modelling for Web Applications*. (2011)
27. O'Brien, H.L., Toms, E.G.: What is user engagement? A conceptual framework for defining user engagement with technology. *Journal of the American Society for Information Science and Technology* 59, 938-955 (2008)
28. Macey, W.H., Schneider, B.: The meaning of employee engagement. *Industrial and organizational Psychology* 1, 3-30 (2008)
29. Algesheimer, R., Dholakia, U.M., Herrmann, A.: The social influence of brand community: Evidence from European car clubs. *Journal of marketing* 69, 19-34 (2005)
30. Ulrich, D.: Tie the corporate knot: Gaining complete customer commitment. *MIT Sloan Management Review* 30, 19 (1989)
31. Fuchs, C., Prandelli, E., Schreier, M.: The psychological effects of empowerment strategies on consumers' product demand. *Journal of Marketing* 74, 65-79 (2010)
32. Spreitzer, G.M.: Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Academy of management Journal* 38, 1442-1465 (1995)
33. Leonardi, P.M.: When flexible routines meet flexible technologies: Affordance, constraint, and the imbrication of human and material agencies. *MIS quarterly* 35, 147-167 (2011)
34. Jüttner, U., Schaffner, D., Windler, K., Maklan, S.: Customer service experiences: Developing and applying a sequential incident laddering technique. *European Journal of Marketing* 47, 738-769 (2013)
35. Koenig-Lewis, N., Palmer, A.: Experiential values over time—a comparison of measures of satisfaction and emotion. *Journal of marketing management* 24, 69-85 (2008)
36. Mayring, P.: *Qualitative Inhaltsanalyse. Grundlagen und Techniken*. Weinheim Basel BELTZ, 2015 12. überarbeitete Auflage (2015)
37. Gläser, J., Laudel, G.: *Experteninterviews und qualitative Inhaltsanalyse. als Instrumente rekonstruierender Untersuchungen*. Wiesbaden VS Verlag für Sozialwissenschaften 2010 4. Aufl. (2010)