Conceptualizing IT Self-Service Engagement: A Grounded Theory Approach

Emergent Research Forum

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Abstract

The phenomenon of solving one’s own technological problem without seeking the help of the IT department is increasing. Up to 54% of organizations are predicted to use IT self-service as an alternative way to provide services to its employees. The concept gained little attention in IS discipline despite its emerging role in modern IT departments. To explore IT self-service engagement, this paper follows an exploratory approach. Interviews are being collected from users and IT professionals working in the domain of IT service delivery. Applying grounded theory principles, particular that of open, axial and selective coding, the study will allow the concept of IT self-service engagement to emerge from the data, along with its causal conditions, intervening conditions, contextual conditions, strategies and outcomes. This study will also place the phenomenon of IT self-service within the stream of IT service research as well as identify strategies that promote IT self-service engagement within the organization.

Keywords

IT self-service, grounded theory.

Introduction

Service quality was established as a central determinant of an individual’s IT user satisfaction and deemed an important factor influencing the success of IS implementations (e.g., Watson et al. 1998; DeLone and McLean 2003). With the aim to provide superior service to customers, IT personnel as well as IT services offered on Websites are expected to be responsive and reliable, among other characteristics (DeLone and McLean 2003; Cenfetelli et al. 2008; Kettinger et al. 2009). However, the notion that a customer can take an active part in the model of IT service delivery process has not been explored comprehensively in the IS field (Sun et al. 2012). Zaza and Junglas (2016) defined IT self-service as “IT self-service as an individual’s behaviors to engage in the process of solving his or her own IT problems without calling upon the help of the IT department”. With 54% of organizations planning to adopt some type of IT self-service model in the near future (Matchett 2015), and with the commoditization of IT taking place, the purpose of this study is to better understand what constitutes IT self-service. More specifically, it is about identifying IT self-service dimensions (if any), how IT self-service fits into the existing IT service literature, and what expectations individuals hold towards IT self-service. By understanding the conceptual roots of IT self-service, organizations can strategize on how to change their culture to support IT self-service, and how to motive users to engage in fixing their own IT issues to save costs, and to reallocate service efforts. Apart from studying IT self-service and its conceptual scope, there is an interest in better understanding what factors might influence individuals to engage in IT self-service. Existing literature and insights from IT leaders have mentioned that an individual’s perceived level of psychological empowerment and IT empowerment might play a determining role (Papegaaij et al. 2016; Cain and Miller 2016; Zaza and Junglas 2016). Likewise, low levels of engagement in IT self-service might be rooted in the quality of service provided by the IT department. In other words, low IT service quality might drive users to engage in IT self-service, more so than otherwise (Matchett 2014). To address these goals, the following research questions will be explored: (RQ1) How do IT service experts view and define IT self-service? (RQ2) What
factors trigger IT self-service engagement? (RQ3) What strategies could possibly promote IT self-service within the organization? In order to address these research questions, we apply an exploratory perspective. Employing interviews, we follow the principles of grounded theory, using open, axial and selective coding methods to arrive at a model of IT self-service.

Research Methodology

The goal of this research is to uncover the nature of IT self-service following an exploratory approach using grounded theory (Orlikowski 1993; Strauss and Corbin 1990). Grounded theory is an inductive approach aiming to discover theory in relatively uncharted areas based upon non-quantitative data. Therefore, a grounded theory methodology is most promising for offering insights, increasing the understanding of the phenomenon and providing a meaningful course of action (Strauss and Corbin 1998). Interviews are appropriated when creating the initial model of IT self-service. Since the concept has not been studied in the IS literature, interviews will help uncover the motivations and hindrance of this phenomenon.

Participant Selection and Data Collection

The research design adopts a systematic, non-probabilistic sampling procedure for soliciting interviews with members of IT departments and users. In our preliminary interview selection, we started with the IT professionals. IT professionals are chosen because (a) they are known to possess experiential knowledge in IT service delivery, (b) they are in direct contact with users who exhibit IT self-service behaviors in the respective organizational context, (c) they can articulate and hopefully explain the triggers of IT self-service as well as its consequences for the IT department. An invitation to participate in this research was posted on an IT professional LISTSERV of a public organization, which led the interview of five IT professionals. Then, a snowball sampling was applied to solicit further interviews. Gender and age are not a basis for the selection process. Interviews were scheduled via email and participants chose whether he or she wanted to conduct the interview face-to-face, over the phone, or using Skype. Consent forms were emailed prior to the interview appointment and consent were verbally confirmed. Interviews commenced in August 2016. So far, seven IT professionals representing three different organizations including private and public were contacted to participate in the study. In order to keep their confidentiality, their identities or that of their respective organizations are not disclosed. Demographic details are provided in Table 1. Interviews took approximately 45 minutes to one hour and serve as the data source for analysis. Interviews were audio recorded and later transcribed for coding and analysis.

<table>
<thead>
<tr>
<th>Participant</th>
<th>Organization</th>
<th>Sector</th>
<th>Level of Experience</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>E</td>
<td>Public</td>
<td>34 years</td>
<td>IT director</td>
</tr>
<tr>
<td>P2</td>
<td>A</td>
<td>Public</td>
<td>3.5 years</td>
<td>IT director</td>
</tr>
<tr>
<td>P3</td>
<td>A</td>
<td>Public</td>
<td>14 years</td>
<td>Support coordinator</td>
</tr>
<tr>
<td>P4</td>
<td>A</td>
<td>Public</td>
<td>20 years</td>
<td>IT manager</td>
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<tr>
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<td>A</td>
<td>Public</td>
<td>25 years</td>
<td>Assistant IT director</td>
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<td>D</td>
<td>Private</td>
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<td>Outsourced IT support specialist</td>
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<tr>
<td>P7</td>
<td>A</td>
<td>Public</td>
<td>25 years</td>
<td>Instructional specialist</td>
</tr>
</tbody>
</table>

Table 1: Demographic Details

An interview guide was designed to direct the semi-structured interviews. The interview guide captured the extent to which IT professionals have detected IT self-service as a trend in their respective organizations. In addition, it captures, from an IT professional’s perspective, what the motivations and limitations of IT self-service are and what strategies could potentially be applied to encourage and promote such a behavior within the organization. In order to pilot the interview guide, we interviewed two
IT professionals in the field of IT service delivery with an experience of over 5 years. We refined the wording for some of the questions and reframed one question that they considered ambiguous and repetitive. The final version of the interview guide was cross-validated by the same experts in a follow-up interview. All interviews started with a “grand tour” question (Spradley 1979, p. 86) in which participants were asked about their role in the organization, and how long they have been in the IT field. Whenever needed, follow-up questions were raised with a clarifying prompt, such as “What do you mean by ...?” or “Can you elaborate?” In some cases, the conversation needed to be re-directed when the participant went off topic.

**Data Analysis and Coding Methods**

According to Glaser and Strauss (2009), the grounded theory as a methodology and inductive process allows themes to emerge and theories to form from data collected through interviews. This methodological approach consists of systematic, yet flexible, procedures for collecting and analyzing qualitative data (e.g., interview transcripts) to form theoretical concepts, “grounded” in qualitative data (Charmaz 2006). Coding of the interview transcripts comprises steps for open, axial and selective coding, as outlined by Strauss’ and Corbin’s (1998) grounded theory guidelines. Nvivo 11 will aid the analysis.

In the subsequent paragraphs, we used data only to illustrate some steps in our analysis1. We carefully followed the set of guidelines offered by Seidel and Urquhart (2013) that will help assist us “in constructing grounded theories using Straussian coding procedures, while adhering to the most basic rule of grounded theory – that preconception must be avoided in order to be true to the spirit of grounded theory” (p.253).

Open coding, the first phase, entails “open[ing] up the text and expos[ing] the thoughts, ideas, and meanings contained there” (Strauss and Corbin 1998, p. 102). A line-by-line coding (Strauss and Corbin 1998) was followed through identifying the main concept revealed in each line of the transcription. As we opened more and more transcripts, we were able to identify codes that pertain to the phenomenon of IT-self-service. For example, when explaining what IT self-service means to him/her, participant P7 stated: “I thought that [IT self-service] would be like a web based resource center... if [the employees] didn't find what they are looking for on our website, they go outside our resources; IT self-service but it wouldn't be a managed IT self-service that we offer.” Accordingly, I coded the passage as “define IT self-service”, “type of help resources available”, and “situations where solutions are not available,” respectively. In another transcript, participant P2 stated that the reason why some users do not try to solve their own IT problem is because “they make the problem worse” and “they will do more harm than good if they try to troubleshoot this on their own” which I coded as “worsening the problem” and “harm more than benefit,” respectively.

Axial coding, or the second phase, is “the process of relating categories to their subcategories, [it] receives its name axial because coding occurs around the axis of a category, linking categories at the level of properties and dimensions” (Strauss and Corbin 1998, p. 123). During this phase, we analyze the codes identified in the previous stage, merge codes to form categories (and subcategories) and identify the properties of these categories. The most important activity during axial coding is to develop a relationship between the codes developed in the open coding stage and each of the axial categories as suggested by the coding paradigm of Strauss and Corbin (1990). For example, the two codes “worsening the problem” and “harm more than benefit” as identified earlier are merged to form a category labeled “technology fear.” For individuals, “technology fear” influences their engagement in IT self-service. If they overcome their fear, they might try solving their technological issues. Therefore, we conclude that “technology fear” should be classified under causal conditions.

The third phase, or selective coding, is about refining and integrating the emerging theory as portrayed in Figure 1. More specifically, it “consists of reviewing the scheme of internal consistency and for gaps in logics, filling in poorly developed categories and trimming the excess ones, and validating the scheme” (Strauss and Corbin 1998, p. 156). During this phase, we refine each category and place it in the appropriate relationship with other categories. We look for concepts that have the power to elucidate aspects of IT self-service and identify a possible theory emerging from it.

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1 Due to space limitation, we are not able to develop personas from our data and describe these in depth
By applying the grounded theory approach, these concepts will help a theory to emerge about IT self-service explaining causes/drivers, moderating effects, strategies and consequences of exerting such a behavior. For example, based on the data, peer pressure is identified as a causal condition of IT self-service, and innovation at the workplace emerged as consequence of such a behavior.

![Figure 1: Grounded theory coding paradigm (adapted from Boehm 2004)](image)

### Results

We have collected and transcribed seven interviews with experts in the IT service delivery domain. Following the grounded theory approach, we have started analyzing the data with the first stage of open coding. We are still in the early stage to derive solid results but so far, we were able to identify technology fear as an antecedent to IT self-service. We will keep collecting more interviews from IT professionals until theoretical saturation is reached. At the same time, we will start collecting interviews from users/employees from organizations to capture their behavior toward IT self-service.

By taking into consideration all the stakeholders that matter for IT self-service, we will be able to construct a more comprehensive theoretical puzzle. One of these theoretical puzzle could be that IT self-service is linked to decoupling because it re-orient where users turn to and thus decouples them from the dedicated IT department. Even though decoupling is usually seen as more negative and not desired by management (e.g., Berente and Yoo 2012), nonetheless, IT self-service seems to have this puzzling promotion of decoupling that will bring benefits to organizations. Another theoretical puzzle could be that IT empowerment plays an important role in promoting such a behavior among users (e.g., Zaza and Junglas 2016).

### Anticipated Contribution

Due to the consumerization of IT, or “the adoption of consumer devices and applications in the workforce” (Niehaves et al. 2012; Harris et al. 2012, p. 99), employees are becoming less reliant on the services of the organizational IT department. Higher levels of computer self-efficacy and competency are at the root of this trend, causing individuals to behave more self-sufficient than in the past (Cousins and Robey 2015). While self-service or do-it-yourself (DIY) behavior is not a new concept in the service marketing and retail literature where self-service has been embraced in Business-to-Consumer (B2C) environments, the IS discipline has not looked into this concept as part of the IT service delivery process. Building a theory of IT self-service, by proposing IT self-service as a distinct concept in the IS field that, has its own merits. Among others, it will help to identify factors that trigger individuals to engage in IT self-service such as, based on our data analysis, peer pressure and IT empowerment; it will also identify

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2 As suggested by the reviewers
contextual and intervening factors that promote or hinder individuals from participating in IT self-service such as time pressure based on our date analysis. After all, individuals might be more satisfied as they can select when to contact their IT personnel, avoid long service waiting times, and solve their own technological problems at their own pace (time, date, and place) which, in turn, might potentially lead to lower IT support costs and faster resolution times for IT issues. Strategies can be tailored to promote and encourage engaging in IT self-service behaviors in organizations, such as, based on our data analysis, offering proper trainings on resources available within the organization that individuals should look at before contacting the IT department for help.

REFERENCES


