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**Angaben zur Veröffentlichung / Publication details:**

Huntgeburth, Jan, J. Förderer, and Daniel Veit. 2013. "Up in the cloud: understanding the chasm between expectations and reality." In Proceedings of the 34th International Conference on Information System (ICIS), ICIS 2013, Milano, Italy, December 15-18, 2013, edited by Richard Baskerville and Michael Chau, 77. New York, NY: AISeL.
http://aisel.aisnet.org/icis2013/proceedings/ResearchInProgress/77/.



# UP IN THE CLOUD: UNDERSTANDING THE CHASM BETWEEN EXPECTATIONS AND REALITY

*Research-in-Progress*

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## Abstract

*CEOs increasingly demand their IT function to fully exploit the opportunities of cloud computing for their company. At the same time, we observe that employees make experiences with cloud services in their private life, which they seamlessly transfer and expect in the workplace – a phenomenon called cloud consumerization. Thereby, employees use self-deployed cloud services for solving business problems which they find more useful than the IT products provided by work. In light of these revolutionary changes, we propose that user experiences and outcomes are contingent on the process through which cloud services are adopted in companies. Systemizing cloud adoption as a continuum of top-down and bottom-up processes, we assume that adoption processes are distinct with respect to users' social and governance context. In this paper, we outline the theoretical and methodological foundation, provide details on the expected theoretical contributions and give information regarding next steps of our research project.*

**Keywords:** Cloud computing, Innovation diffusion, Survey research, Adoption, CRM, E-services, Experience, Information technology adoption, Innovation processes

# Introduction

Cloud computing represents an evolution of how information technology (IT) is delivered to consumers and businesses (Armbrust et al. 2010; McAfee 2011). Since its first inception in 2007, early interest of academics and practitioners has grown to grasp cloud computing as a paradigm shift of computing on both an organizational and individual level (Carr 2008; Deloitte 2009; Forrest 2009; Gandhi et al. 2012; Iyer and Henderson 2010; Rossbach and Welz 2011; Venters and Whitley 2012). Although the technological functionality offered by cloud computing dominates academic and professional literature, its potential resides for most adopters in the ability to transform organizations by cutting the overall cost of doing business, by driving innovations, and by simplifying the overall process of integrating technology into the business process (Venters and Whitley 2012). Despite their potential to shift product-centric application models into globally distributed service-centric models (Iyer and Henderson 2010), cloud services to date still have a humble record of customer adoptions (Tata Consultancy Services 2012).

Cloud services also fuel IT consumerization - a phenomenon referring to employees that seamlessly transfer and expect their private life cloud services in the workplace (Harris et al. 2012). Thereby, these individuals use self-deployed cloud services for solving business tasks, which they perceive as more useful than the technology provided by their IT department. Despite or precisely because of strict IT policies, many employees declare to use self-deployed cloud services for solving business problems (36%) which they often find more useful than the IT products provided by the company's IT function (45%: survey of 4,017 employees conducted by Accenture 2011). In the light of these revolutionary changes, we propose that depending on the mode of how cloud services enter and infuse the company we will observe different post-adoption user experiences and outcomes for enterprises. In the absence of any scientific study distinguishing among different modes of cloud services enterprise-wide diffusion, we strive to examine the research question: *which contingency factors influence how users are experiencing cloud services?*

We expect the following contributions from our study. On the one hand, we aim to extend expectation-disconfirmation theory (EDT) for studying cloud service user experience. EDT is the dominant theoretical lens for studying user or customer experience in IS and marketing literature (Bhattacherjee 2001; Oliver 1980). Based on previous cloud literature, we identify three cloud service dimensions that are critical for achieving positive user-related post-adoption outcomes. Based on these dimensions and expert interviews, we instantiate EDT to the context of cloud services by developing cloud-specific user expectations and performance scales. Apart from contextualizing EDT, we also create a theoretical extension by developing contingency factors that capture the frame in which cloud services are adopted and used by end users. By the end, we strive to understand how service experiences are contingent on users' social and IT governance context. Based on the result of a survey among users of on-demand customer relationship management (CRM) services, we aim to test our research model and provide practical guidance for cloud providers and interested enterprises on how to better manage cloud user experiences and on how to fully exploit the all-embracing opportunities of cloud services for the company.

Our *research-in-progress* paper presents the current status of the project as follows. On the one hand, we introduce the theoretical foundation of our research in four steps. First, we exemplify our perspective on cloud services. Second, we analyze the discourse of EDT in IS research and explain how our study integrates into this context. Third, we introduce cloud-specific user service expectations which we motivate by previous research on cloud computing. Last, we present our contingency approach for understanding cloud experiences. On the other hand, we introduce the methodological foundation of our research project in three steps. First, we introduce the research setting in which we aim to test our research model. Second, we provide details on how we have developed the scales for our survey. Last, we give an outlook on our planned large-scale study in cooperation with a partnering company.

# Theoretical Foundation

## *Perspective on Cloud Services*

We define cloud computing as a virtualization-based style of computing where IT resources are offered in

a highly-scalable way as a cloud service over the internet (Armbrust et al. 2010). Literature classifies cloud services according to their service and deployment model (Iyer and Henderson 2010; Mell and Grance 2010). Essentially, three service models for cloud-based solutions are distinguished; each one targeting at different levels of abstraction: infrastructure as a service (IaaS), platform as a service (PaaS), and software as a service (SaaS) (Mell and Grance 2010). Apart from the service model, two essential models of cloud computing deployment can be distinguished, namely private and public clouds. Private clouds are devoted to a single company only and may be built, owned, and managed by the organization or by a third party (Mell and Grance 2010). Public cloud services are available to the general public and are owned, built, and managed by third parties (Armbrust et al. 2010). In our study, we focus on investigating user experiences with SaaS deployed on public cloud infrastructure for the following reasons. First, SaaS deployed on public cloud infrastructure is currently the market with the highest growth rate and economic potential among cloud services (Forrester Research 2013). Second, private cloud infrastructures do not enable end users to individually adopt services as described in our introduction section.

## *Understanding Cloud User Experience*

Previous research on IT user experiences and behavior has highlighted the important role of user satisfaction defined as the users' subjective judgment resulting from positive and negative observations of the cloud provider's performance (Oliver 1993). In our cloud context, user satisfaction is especially important since it drives strategically important post-adoption outcomes such as positive word-of-mouth (Hennig-Thurau et al. 2002), continuance behavior (Oliva et al. 1992) or higher willingness to upgrade (Homburg et al. 2005). As the elimination of up-front commitment and low switching costs imply that cloud market success mainly depends on users' post-adoption behavior rather than the initial adoption decision, user satisfaction can be seen as the very success factor for cloud providers who want to succeed in a highly competitive market.

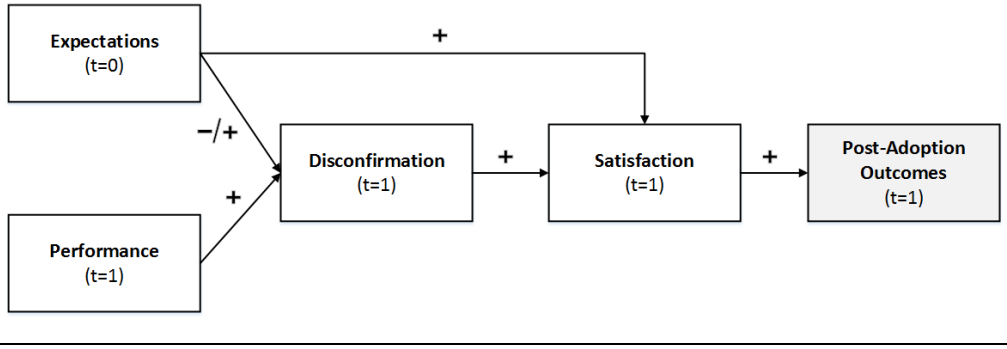


**Figure 1. The Expectation-Disconfirmation Paradigm in IS Research (Bhattacherjee 2001)**

In IS and marketing research, the expectation disconfirmation theory (EDT) - developed by Oliver (1980) – is one of the dominant lenses for examining and understanding user experiences. A wide range of IS and marketing studies in the past decades have demonstrated the predictive ability of EDT in different IT product and service contexts (Bhattacherjee and Premkumar 2004; Bhattacherjee 2001; Khalifa and Liu 2003; Kim et al. 2009; McKinney et al. 2002; Susarla et al. 2003; Tesch et al. 2005; Venkatesh and Goyal 2010). While there are other prominent IS models such as the Technology Acceptance Model or Task-Technology Fit for explaining service experiences and outcomes, both do not incorporate the interplay of expectations and performance experiences. As our assumption is that expectations and performance experiences are contingent on the mode of adoption, we have selected EDT as a theoretical lens for our study. EDT positions satisfaction as a function of prior expectations, performance and disconfirmation as well as a driving force of a variety of post-adoption outcomes (see Figure 1) (Oliver 1980). Disconfirmation itself is the deviation between an individual's expectation and actual performance; outcomes, which are better than expected lead to positive disconfirmation (i.e., confirmation) and worse than expected outcomes lead to negative disconfirmation (Oliver 1980; Susarla et al. 2003). Furthermore, EDT implies that causal attributions for disconfirmation will mediate customer satisfaction (Bitner 1990),

which then impacts post-usage outcomes. Thus, expectations and actual performance determine customer satisfaction and indirectly other strategically important outcomes (Bhattacherjee 2001). Therefore, understanding expectations and perceived performance of cloud users is crucial to explain and predict user behavior.

Table 1 provides a comprehensive overview of papers published in one of the top IS journals (AIS 2011) applying EDT since Bhattacherjee (2001) and highlights how our study fits in this context. Since its first inception by Oliver (1980), scholars proposed a variety of extensions and combinations with related theories. Bhattacherjee (2001) integrated EDT into the widely used TAM and proposed a model of IS continuance. Following, McKinney et al. (2002) positioned EDT in the context of web-customer satisfaction building on self-perception theory, Bhattacherjee and Premkumar (2004) postulate a two-stage model of belief and attitude change of users during the course of their IT usage. Subsequently, Tesch et al. (2005) examined the impact on user satisfaction by the interaction of the expectation-performance and realistic expectation gaps in the concrete setting of skill levels of IS providers and users. Kim et al. (2009) propose an extended version of the theory of reasoned action (Fishbein and Ajzen 1975) and merge it with the EDT model in order to investigate the relationship between a consumer's pre-purchase trust and post-purchase satisfaction. Venkatesh and Goyal (2010) propose and test a polynomial model of EDT in the setting of a deployment of a human resource IS. Lankton and McKnight (2012) investigate measurement differences in the use of the simplified and the complete version of the EDT model. Our study mainly differs from previous studies with respect to the operationalization of user expectations and perceived performance as well as with respect to its extension by contingency factors. We believe that a combination of EDT with contingency factors is particularly useful in the context of cloud service where service expectations and perceived performance are highly contingent on the modes of how cloud services are adopted and used by enterprises and users. In the following, we exemplify these points in detail and propose a framework of cloud user experience.

**Table 1. Extensions of EDT in IS Research**

| Reference | Year | Outlet | Setting | Key Construct(s) | Contributions to EDT |
|---|---|---|---|---|---|
| Bhattacherjee | (2001) | MISQ | Online banking | Perceived performance | User continuance intention is determined by the satisfaction with IS use and perceived usefulness of continued use |
| McKinney et al. | (2002) | ISR | Online shops | Information quality, system quality | Merge EDT with parts of TAM |
| Susarla et al. | (2003) | MISQ | ASP | Functional capabilities of ASP, technical performance guarantees, perceived provider performance | The results indicate that expectations influence the performance evaluation of an ASP and that experience-based norms have only limited explanatory power in this case |
| Khalifa and Liu | (2003) | ISR | Online community | Perceived performance | Highlight the need to consider the evolutionary nature of satisfaction and the variability of its determinants along with desires |
| Bhattacherjee and Premkumar | (2004) | MISQ | Computer-based training | Perceived usefulness | Propose a two-stage model of expectations and attitude change over time |
| Tesch et al. | (2005) | JAIS | IS skill levels | IS skill expectations/importance, IS skill perception | Find realism of user expectations as potential factor of IS success or failure |
| Kim et al. | (2009) | ISJ | E-Commerce | Expectations, perceived performance | Draw on TRA, EDT, and the valence framework to synthesize a model of consumer trust and satisfaction |
| Venkatesh and Goyal | (2010) | MISQ | Human Resource IS | Perceived usefulness | Propose and test a polynomial model of EDT in information systems |
| Lankton and McKnight | (2012) | JAIS | Database Systems | Expectations, perceived performance | Find that the complete EDT model reveals assimilation effects for less experienced users |
| Our study | | | Cloud CRM | Cloud-specific performance | Extend EDT by contingency factors |

## *Cloud-Specific User Experience*

While previous research on IT outsourcing and adoption has mainly looked at the organizational level to explain why organizations are adopting and using emerging technologies (Dibbern et al. 2004; Jeyaraj et al. 2006), we believe that cloud service experiences and outcomes are best understood by examining the individual end user level (Mollick 2012). Previous research suggests that for most users cloud computing's

potential resides in the cloud services' ability to transform users' business processes (Iyer and Henderson 2010). We propose that cloud users' expectations and perceived performance are centered around three service dimensions. As noted by Venters and Whitley (2012, p. 189), "although the technological functionality offered by cloud computing is significant in the desire for cloud, for most adopters its potential is in the ability to transform organizations by driving down the overall cost of doing business, by reducing the cost and time needed to configure applications and by simplifying the overall process of integrating technology into the business process." This is particular salient in our context where we examine perceptions and behavior of cloud end-users who are less interested in the technological dimensions of cloud services. Therefore and for the sake of parsimony, we looked at the three service dimension of efficiency, creativity, and simplicity (Venters and Whitley 2012). If the service can meet these service expectations, strong user-related post-adoption outcomes can be expected.

First, expectations of *efficiency* wrap around the belief of users to work economically more efficient. Cloud services are marketed upon the expectation that economies of scale offer significant cost reductions and lower prices for customers (Forrest 2009; McAfee 2011). Individual-level efficiency improvements can be reasoned with the cloud's on-demand nature (Armbrust et al. 2010), the reduction of up-front risks (McAfee 2011), the enabled location-independent access (Iyer and Henderson 2010), and the resulting agility in doing business (Marston et al. 2011). Low switching costs and standardized service level agreements of cloud services reduce former hidden costs and efforts (Venters and Whitley 2012). Second, expectations of *creativity* refer to the extent cloud services release potential to innovate business processes in new ways (Forrest 2009; Venters and Whitley 2012). This grounds on the cloud's promises to improve the speed of technology adoption (Marston et al. 2011) and to reduce barriers of innovation requiring no upfront commitments (McAfee 2011). Individuals can obtain the tools required for their work in a flexible and self-responsible way; thereby transforming the former standardized IS environment in a flexible and individual ecosystem centered on a user's preferences. Third, expectations of *simplicity* concern the extent to which a service can be obtained and managed by users. The standardized nature of cloud services provides pay-per-user schemes (Mell and Grance 2010) as well as disentangled contractual arrangements; thus enabling single users to obtain consumerized cloud services.

## *Exploring Contingency Factors for Understanding Cloud User Experience*

Our contingency approach assumes that users' service experience is contingent on the mode of how cloud services enter the company. As discussed in the introduction, we can observe two extremes of how cloud services are adopted by companies. On the one hand, the top-down mode describes an adoption process where a top decision-maker (e.g., CIO or CEO) takes the decision to adopt a cloud service for the company and commits end users to use the service (Jeyaraj et al. 2006; Pierce and Delbecq 1977). On the other hand, the bottom-up mode is an adoption process where a single employee takes the decision to adopt a cloud service and motivates other organizational actors to follow (Accenture 2011).

**Table 2. Tendencies of Different Modes of Enterprise-Wide Cloud Service Diffusion**

| | | *Top-down* | *Bottom-up* |
|---|---|---|---|
| **Context** | *Governance* | IT Department Initiative<br>High TMC | User Initiative<br>Low TMC |
| | *Social* | Low Cloud Expertise<br>Low Social Support | High Cloud Expertise<br>High Social Support |
| **Experience and Outcome** | | Tends to be low | Tends to be high |

Since it is unlikely that you can always observe these idealized extremes when cloud services enter a company, we treat cloud service adoption as a continuum with top-down and bottom-up as two extremes. Moreover, we draw on social influence theory and self-determination theory (as described above) in order to derive factors that describe the context of a bottom-up or top-down process respectively (see Table 2). Communication research suggests that expectations and performance perceptions are, in part, constructed by the social world in which the user resides (Fulk et al. 1987). According to the social influence model of technology use, social influence of a service is high if the user is equipped with sufficient medium expertise and positive social influence by organizational colleagues (Schmitz and Fulk 1991). We believe that a bottom-up adoption process typically takes place in a social context where users

have higher *cloud expertise* and higher *social support* by co-workers than in the opposite scenario. Compared to the bottom-up adoption process, the top-down adoption process may involve that end users are coerced to adopt a particular service and thus, these processes tend to involve lower levels of expertise to use the service among users. Moreover, binding users to use the service may also lead to lower levels of social support. In a nutshell, the level of social support and cloud expertise tends to be higher in bottom-up than in top-down adoption processes.

In contrast to the social context, the governance context describes who is responsible and who provides input into the cloud service adoption process (Brown and Grant 2005). IT governance deals with the question on how responsibilities for IT decisions should be shared among IT and client departments (Tiwana 2009). Its goal is to direct an organization's IT-related decisions and actions in a way that desired behaviors and outcomes are realized (Huang et al. 2010) and that IS and IT are integrated into business purpose and activity (Van Der Heijden 2001). Reviewing the cloud governance literature, we identified two useful construct to measure the governance context from a user perspective, namely *origin of the initiative* (Weill and Ross 2004; Winkler et al. 2011) and *top management commitment* (TMC) (Wang et al. 2006). The construct *origin of the initiative* deals with the organizational actor that "[…] brings up the idea for, and is driving the implementation of the application" (Winkler et al. 2011, p. 10). In the top-down approach the initiative typically stems from the IT department or another top decision-maker, in the bottom-up approach end user take the initiative. Top management commitment refers to the extent to which top-management provides necessary involvement, resources, and authority in guiding and assisting the adoption of a particular cloud service (Wang et al. 2006). While in the top-down scenario top management may be tended to provide the necessary support for adopting the service, in the bottom-up scenario adoption may take place below radar level or against the will of top management.

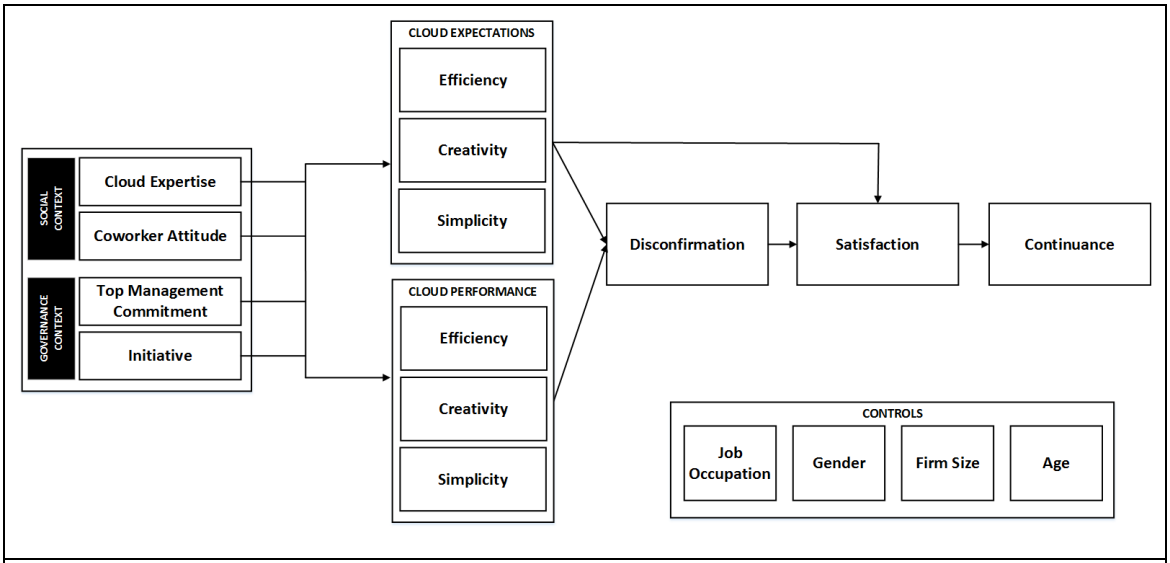


**Figure 2. The Preliminary Research Model**

As a next step of this research project, we aim for theorizing on how the social and governance context precisely influences users' cloud experiences (i.e. their expectations and perceived performance of the service). Our conjecture is that service experiences and outcome are dependent on the social and governance context in a way that bottom-up processes lead to higher service experience and outcome at the individual level than top-down processes (see Figure 2).

# Methodological Foundation

## *Research Setting*

On-demand customer relationship management (CRM) systems were chosen as a specific empirical setting for this study for two main reasons. CRM systems are suites of applications designed to automate the collection, assimilation, analysis, and distribution of information by assisting back-office staff and front-office personnel in their selling or administrative activities (Ahearne et al. 2008). The choice for this setting was made for three reasons. First, CRM is among the cloud-deployed enterprise systems with the highest adoption rates (Gandhi et al. 2012). Second, especially in the setting of CRM the identified dimensions of efficiency, creativity, and simplicity are of high importance. Efficiency, especially regarding cost and customer transactions, is an important lever for increasing firm performance through CRM systems implementation (Krasnikov et al. 2009). Practitioner literature posits CRM high potential of reducing costs via the cloud's benefits of faster time to value, easy deployment, reduction of administrative effort and scalability (Prewitt and Ware 2006). Moreover, creativity, in terms of enabling innovation, is a key requirement for effective customer relationship management (Hunter and Perreault 2007). By reducing transaction costs associated with innovation and enabling the development of value networks the cloud can accommodate this demand (Venters and Whitley 2012). Simplicity, regarding setup, operation, and use of CRM systems is a major demand of its prospective adopters (Chen and Hitt 2002; Krasnikov et al. 2009). Prospective users of cloud services face reduced up-front commitment and switching costs, as well as flexible contracts in pay-per-use manner (Gandhi et al. 2012). This enables them a higher transparency of service-related factors, to regularly reevaluate their decision to adopt and to switch services, if necessary. Finally, especially in the context of CRM, adoption can be initiated in a top-down, i.e. by top decision-makers, or bottom-up, i.e. by sales managers, manner, which allows us to investigate governance-related factors. For these reasons, on-demand CRM systems are an appropriate setting for investigating the role of contingency factors on cloud user experience.

## Development of Scales for Cloud User Experience

Seven-point Likert scales are used in this study to measure our constructs: cloud expectations, cloud performance, disconfirmation and satisfaction, continuance as well as the IT governance and social context of the user. We used pre-validated scales adapted from prior literature in IS research for the construct of satisfaction (Hsieh et al. 2012; Kim and Son 2009) and continuance intention (Bhattacherjee, 2001) as well as the contingency factors top-management commitment (Wang et al. 2006), governance mode (Tavakolian 1989; Winkler et al. 2008) and social support (Schmitz and Fulk 1991). For cloud expertise we adjusted the wording of the IT expertise scales developed and tested by Bhattacherjee and Sanford (2006) to match the cloud context.

We followed the procedure proposed by MacKenzie et al (2011) to develop and validate scales for the constructs of cloud expectations, cloud experience, and disconfirmation. First, to develop a conceptual definition of the cloud expectation construct we conducted a literature review of previous theoretical and empirical research on cloud-related key performance attributes. Two interviews with responsible sales managers in the area of on-demand CRM of a large German software manufacturer were conducted in order to deepen our understanding from a practitioner's point of view. Second, we used the framework of cloud desires by Venters and Whitley (2012) as a starting point to generate the questionnaire items of the first iteration. The items' wording was aligned to previous EDT studies with related subjects (esp. Kim et al. 2009; Susarla et al. 2003). Third, content validity of the initially generated items was evaluated using the matrix sorting procedure (Weidong and Lee 2005). We therefore constructed a matrix, which listed definitions of the construct domain on at the top of the columns and the items are listed in the rows in a randomized sorting order. We asked six faculty members to rate the extent to which each item captures each construct domain and afterwards calculated one-way repeated measures ANOVA to assess differences (MacKenzie et al. 2011; Yao et al. 2008). We iterated through this procedure several times with different raters; eliminating items with a high variance in its rating and generating additional items. Appendix A provides an overview of the final items.

Oliver and Swan (1989) posit that disconfirmation for continuously provided services will not operate

unless there are changes that are outside the range of experience-based norms. We therefore followed the approach of Susarla et al. (2003, based on Churchill and Suprenant, 1992) and used departures from normal service as well as attribute-level disconfirmation to assess the disconfirmation construct (DISC). We designed the disconfirmation construct based on the attributes resulting from worse than expected cloud performance (in line with Churchill and Suprenant, 1992). For example, one item queries the respondents on the implementation period, as a longer rollout erodes the expectations of rapid deployment and low upfront costs of cloud services. Finally, prior literature provides evidence that employee differences in gender (Roth et al. 2010), age (Hedge et al. 2006), voluntariness of use (Moore and Benbasat 1991) and technology usage experience (Morris and Venkatesh 2010) may affect job-specific outcomes. Therefore, we gathered and included data for age (AGE), gender (GEN), voluntariness (VOL) and job occupation (JOB) to control for the influence of these.

## *Outlook*

We are currently in the process of empirically pre-testing the measurement scales for which we recruit respondents (sales managers) through a professional social networking site. We plan the following steps to further proceed in this research project. First, based on the results of the pre-test, we want to validate our measurement scales for statistical properties and shorten the final survey instrument. Moreover, we aim to further advance our theory development on the relationship between our contingency and service experience factors involving *how* and *why* the constructs are precisely interrelated (Whetten 1989).

The core asset for advancing our project is a partnership with a large provider who is offering on-demand CRM solutions for enterprises. The provider is keen to know how customers are experiencing their service. Therefore, he is willing to distribute our final survey instrument to a designated group of enterprise customers who are interested in getting benchmarked against other companies with respect to end user satisfaction of their on-demand CRM service. For participation we offer a personalized benchmarking report including statistically derived managerial guidelines on how to improve user satisfaction (cf. Urbach et al. 2011). By the end, we aim to survey 300 employees from at least 15 different companies to ensure for sufficient variance with respect to the variables under examination. We plan to analyze the returning data using the partial least squares (PLS) approach of the confirmatory factor analysis (CFA) (Henseler et al. 2009). Based on the gathered empirically data, we aim to get insights on the contingency factors which influence how users are experiencing cloud services – which is the overall goal of our research project.

Taken as a whole, we expect contributions from the study in three major areas. First, our study aims for contributing to the cloud literature by showing that the way cloud services enter the company highly influences how companies are able to exploit cloud technologies and improve IT performance. Second, our study intends to contribute to expectation-disconfirmation theory by explaining how and why expectations and experiences regarding emerging technologies are shaped by the situational context of the user. Finally, we believe that the understanding of how experiences are shaped can be informative for the management of cloud services since IT executives can design cloud consumerization strategies which help companies to fully exploit the great opportunities of cloud services.

# Appendix

| | **I. Cloud Expectations:** How much do you agree or disagree that the following factors are important when you decide to outsource CRM to a specific cloud provider? | **II. Cloud Performance:** How much do you agree or disagree from your experience with [ON-DEMAND CRM] that the following objectives have been achieved? |
|---|---|---|
| | **[ON-DEMAND CRM] will…** | **{With} [ON-DEMAND CRM]** |
| **EFFICIENCY** | .. allow me to save money for the company. | .. I save money for the company. |
| | .. help me to speed up transactions. | .. helps me to speed up transactions. |
| | .. allow me to align more efficiently to customer needs. | .. I react more efficiently to customer needs. |
| | .. enhance my productivity. | .. I am working more productively. |
| | .. enhance my productivity. | .. I am working more efficiently. |
| **CREATIVITY** | .. allow me to react to customer requests in a more innovative way. | .. provides scope for realizing my creativity. |
| | .. enable me to create new business opportunities in an innovative way. | .. enables me new customer opportunities. |
| | .. provide me with the ability to offer more innovative customer solutions. | .. I can offer more innovative customer solutions. |
| | .. enable me to be creative. | .. enhances my creativity. |
| | .. provide scope for realizing my creativity. | .. I react to customer requests in a more innovative way. |
| **SIMPLICITY** | .. simplify my tasks in customer relationship management. | .. simplifies my tasks in customer relationship management. |
| | .. be simple to manage. | .. is simple to manage. |
| | .. be simple to upgrade. | .. offers a variety of functions. |
| | .. support all of my CRM needs. | .. supports all of my CRM needs. |
| | .. be simple to use. | .. is simple to use. |
| **III. Disconfirmation:** From your experience with [ON-DEMAND CRM], please indicate to what extent [ON-DEMAND CRM] is worse or better than expected regarding following factors. | | |
| Managing customer relations. | | Shorter implementation period. |
| Employee productivity. | | Customer satisfaction. |
| Mobility. | | Scalability. |
| Service delivery. | | Innovations. |

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