
CORPORATE REPUTATION, EMPLOYEES, AND SOCIAL MEDIA

Habilitationsschrift

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PUBLICATIONS OVERVIEW AND DISCLAIMER

This thesis contains eight publications, which can be grouped in the following way (*Notable rankings for comparison in brackets: VHB-JQ: Ranking des Verbandes der Hochschullehrer für Betriebswirtschaftslehre (VHB), JOURQUAL 3; ABDC2016: Australian Business Deans Council Ranking*).

Employees' perceived external corporate reputation

Schaarschmidt, M. (2016). *Frontline employees' participation in service innovation implementation: The role of perceived external reputation*. **European Management Journal**, 34 (5), 540-549. (VHB-JQ: B, ABDC2016: B)

Corporate (online) reputation and employee behavior in social media

Schaarschmidt, M. and Könsgen, R. (2019). *Good citizen, good ambassador? Linking employees' reputation perceptions with supportive behavior on Twitter*. **Journal of Business Research**, forthcoming (VHB-JQ: B, ABDC2016: A)

Schaarschmidt, M. and Walsh, G. (2019). *Social media-driven antecedents and consequences of employees' awareness of their impact on corporate reputation*. **Journal of Business Research**, forthcoming (VHB-JQ: B, ABDC2016: A)

Walsh, G., Schaarschmidt, M. and Von Kortzfleisch, H. (2016). *Employees' company reputation-related social media competence: Scale development and validation*. **Journal of Interactive Marketing**, 19, 46-59. (VHB-JQ: B, ABDC2016: A)

Walsh, G., Schaarschmidt, M. and Teng, L. (2019). *Cross-cultural assessment of a short scale to measure employees' company reputation-related social media competence*. **Corporate Reputation Review**, forthcoming (VHB-JQ: D, ABDC2016: C)

Consumer reactions to online reputation

Könsgen, R., Schaarschmidt, M., Ivens, S. and Munzel, A. (2018). *Finding meaning in contradiction: Effects of discrepant online reviews on job application intentions*. **Journal of Interactive Marketing**, 43, 165-177. (VHB-JQ: B, ABDC2016: A)

Schaarschmidt, M., Ivens, S. and Homscheid, D. (2017). *Dr. Miller or Dr. Smith? Patients' Intentions to Make Appointments on Physician Rating Platforms*. **International Conference on Information Systems (ICIS)**, Seoul, South Korea. (VHB-JQ: A, ABDC2016: --)

Walsh, G., Schaarschmidt, M. and Ivens, S. (2018). *Assessing the Effects of Multichannel Service Provider Corporate Reputation on Customer New Product Adoption and RFM Value*. **Journal of Service Management**, 29 (4), 680-702. (VHB-JQ: B, ABDC2016: A)

Disclaimer:

All except one publication are the result of cooperative work. The majority of the work originates from the BMBF Project Webutatio (2015-2018), where I am indebted to my co-investigators Harald von Korflesch (Universität Koblenz-Landau) and Gianfranco Walsh (FSU Jena), as well as my doctoral students Stefan Ivens and Raoul Könsgen, in particular. The support of Berge&Meer GmbH and Check24 Services GmbH as project partners is also much appreciated. Though these are the people primarily involved in this habilitation project, research is never done in isolation. Many other people contributed to this work through discussions, hints, and critical feedback. I will name some of them in my concluding remarks.

Concerning the actual publications, I am first author in four of the eight publications, and second author in the remaining publications. To be able to better assess my contribution to these publications, I will briefly discuss research idea, data collection, data analysis, writing, and revision for each of the papers. Sometimes much more than these steps are necessary and they are also difficult to distinguish from each other when more than one empirical study is part of a publication. Thus, the following lines should be understood as an attempt to give a wider impression, rather than separating exact amounts of work.

Schaarschmidt (2016) is a single author paper, for which I did all the steps described above. For Schaarschmidt and Könsgen (2019), I co-developed the idea, did the data collection for study 2, did the majority of the data analysis and was solely responsible for the revision. For Schaarschmidt and Walsh (2019), I developed the research idea, collected the data for both studies, did the data analysis, wrote the first draft, and led the revision process. Walsh et al. (2016) is a scale development paper and consists of multiple qualitative and quantitative studies. Here, I collected data for studies 3 and 4, did the data analysis for the non-qualitative part, and contributed substantially to the revision. My contributions to Walsh et al. (2019) involved data collection for the U.S. sample, data analyses, and writing the results section. My contribution to Könsgen et al. (2018) embrace co-developing the research idea, substantially revising the first draft, supporting data analysis, and leading the revision process. For Schaarschmidt et al. (2017), Stefan Ivens collected data for study 2; Dirk Homscheid collected data for study 3. All remaining research steps were done by me alone. Finally, for Walsh et al. (2018), I co-developed the research idea, supervised data collection, did the analysis, wrote the data analysis part, and contributed substantially to the revision. I also want to disclose that parts of the data that has been used for Könsgen et al. (2018) and Schaarschmidt and Könsgen (2019) have also been used in Raoul Könsgen's PhD thesis (in German). All remaining contributions of this thesis have been developed and written by myself alone.

INTRODUCTION

Social media has changed how customers, businesses, employees, and job seekers form their reputation perceptions of a company, that is, how they form their evaluative judgements about a company's products, services and behaviors towards constituencies (Walsh et al. 2009; Weinberg et al. 2013). In pre-social media times, companies had control over what they communicated to their stakeholders, for example, by using corporate websites to convey a predefined image. With social media, multiple opinions, experiences, and company perceptions reach the wider public via multiple channels such as Twitter, Facebook, and other social networking sites that enable user-generated content (Gretry et al. 2017; Xie et al. 2014). Although companies usually try to nurture an online reputation by running their own Facebook and Twitter profiles, a large amount of online content related to a company is produced by social media users and thus is beyond companies' control (Bolton et al. 2002; Jones et al. 2009; Srivastava & Kalro 2019).

A group of social media users that has been largely neglected so far is employees (Cravens & Oliver 2006; Korzynski et al. 2019; Lee & Tao 2020). Employees are typical social media users and are not necessarily different from other user groups. The majority of any population in western societies has a job and uses social media. Thus, being employed is just one out of multiple roles individuals display when interacting in social environments. However, employees' use of social media can be problematic though, when the use is connected to the employing company (Walsh et al. 2016). I will provide at least three examples.

First, some employees have to maintain official company accounts, where their actions are directly linked to the company. Misbehavior in such instances can directly negatively affect the company image. For example, an US Airways employee posted a not-save-for-work picture on Twitter as a response to a customer's complaint. Although the picture was accessible for only one hour, this caused enormous disgust among social media users (Ivens & Schaarschmidt 2015). Second, especially individuals who have a high external visibility have the potential to shape the image and reputation of their company (Strasser & Bartoschak 2019). Among these highly visible people are CEOs or publicly-known employees such in the case of sport teams. Elon Musk, CEO of Tesla, Inc. might be considered an example of a CEO who tremendously shapes the image of his company – and indirectly stock market reactions. In a similar vein, soccer players contribute to the reputation of their employing club through their social media actions – both in positive and negative ways. Finally, the average employee can contribute to how a company is perceived by the wider public, predominantly in two ways. First, employees can express their satisfaction (or dissatisfaction) on company rating platforms (Könsgen et al. 2018; Stockmann et al. 2020). The aggregated opinions about a company then contribute to an overall image of a company as a good employer. Second, and even more problematic, is unthinkingly (or even intentional) social media use that is not in accordance with what the company wants to stand for (Walsh et al. 2016). For example, in their private roles (but identifiable as employees), individuals could like

anti-Semitic posts on Facebook or share videos showing violations of human rights. These actions might harm a company's good name when those instances go viral.

These social media actions by employees not only may have consequences for the company, these forms of social media behavior might also have severe consequences for employees such as written warnings, dismissal, or even legal consequences. Still companies are just at the beginning to understand how these forms of social media use affect their reputation and how they should react when their reputation is (negatively) affected by their own employees. Companies also have no adequate tools to assess employees' competence to use social media in a way that is in accordance with their own reputational goals. To this end, this thesis aims to close some of these gaps as I will detail in the next paragraph.

THESIS GOALS

The thesis is built around the topics of corporate reputation, social media, and how employee behavior in social media affects corporate reputation perceptions of other constituencies. While there is no single, overarching thesis goal (or research question) – each paper has a set of own goals –, some goals are worth to be mentioned separately. In particular, across eight research papers, this thesis aims to

- providing evidence for the relevance of company reputation for employees,
- showing positive effects of perceived external reputation,
- developing, validating, and replication a measure for employees' company-related social media competence,
- and testing consumer reactions to reputation in recruiting, health, and shopping contexts.

BACKGROUND AND OVERARCHING THEORETICAL ANCHORS

Corporate Reputation

Corporate reputation literature faces a long history of different definition attempts in different disciplines and from different institutional strands (Ali et al. 2015). However, consensus exists with regard to the fact that corporate reputation is a multidimensional construct, consisting of dimension such as being innovative, being financially strong, and being perceived as a good employer (Walsh et al. 2009). The interest in reputation research arises from the factor that a company's good name has positive effects on recognition, sales, and stock market success (Fombrun & Shanley 1990; Fombrun et al. 2000; Schultz et al. 2001). Furthermore, as an intangible company asset (in contrast to tangible assets such as patents, personnel, and financial resources), reputation cannot be traded in a market. Thus, companies have a huge interest in strengthening their corporate reputation while simultaneously building protection systems against reputation damages (Claeys & Cauberghe 2015; Jones et al. 2000).

The term reputation is used in different ways. For example, some researchers refer to corporate reputation as a construct that describes the wider public’s impression of a company – summarizing evaluations of the business press, stock markets, and consumers (Jones et al. 2000). Other streams of research, especially in marketing, favor a customer-centric view (e.g., Walsh et al. 2018). Here, reputation is defined as a single person’s perception of company attributes. Thus, Walsh and Beatty (2007) define customer-based corporate reputation (CBR) as an attitude-like evaluative judgement of firms and to be a multi-dimensional construct consisting of the dimensions “customer orientation”, “good employer”, “reliable and financially strong company”, “product and service quality”, and “social and environmental responsibility”. Finally, human resource researcher have used the term reputation in relation to employer attractiveness. For job seekers, not surprisingly, the good-employer-dimension of corporate reputation, often called organizational employer reputation (Cable & Turban 2001), is key to forming application intentions. In turn, an unfavorable reputation can impair a firm’s ability to arrive at an appropriate applicant pool (Kanar et al. 2015; Stockman et al. 2020).

Given the long history of reputation research in various fields such as marketing, consumer research, and strategy (Walsh & Beatty 2007; Weigelt & Camerer 1988), some notable review articles summarizing what we know about reputation exist (e.g., Lange et al. 2011; Walker 2010). More recently, Money et al. (2017) provided another review on reputation research and identified three phases, which, of course, overlap in terms of time and topics. According to their review, corporate reputation has first been researched from a signaling theory as well as a resource-based theory perspective. In a second, phase, partly driven through research efforts in marketing, the customer-centric and perception-centric perspective has been added. Finally, recently, the focus has been shifted to contingencies and moderators, with social media being one out of several important environmental influences on corporate reputation. Table 1 summarizes Money et al.’s (2017) main results.

<i>Time period</i>	<i>Key themes</i>
1940-1990	<ul style="list-style-type: none"> ▪ Corporate reputation as asset ▪ Corporate reputation as signal ▪ Company-centric view of corporate reputation
1990-2006	<ul style="list-style-type: none"> ▪ Corporate reputation as perception ▪ Distinguishing between image, identity, and corporate reputation ▪ Development and critique of corporate reputation measures ▪ Placing corporate reputation in larger causal frameworks ▪ Stakeholder-centric view
2006-2017	<ul style="list-style-type: none"> ▪ Linking corporate reputation to management theories ▪ Understanding underlying mechanisms of how corporate reputation develops ▪ Understanding contingency and moderators in corporate reputation research – <i>including social media</i>

Table 1. Review of the corporate reputation literature in time periods 1940–1990, 1990–2006, 2006–2017 (based on Money et al. 2017).

For this thesis, I distinguish a pre-existing evaluative judgement of a firm, which is a consequence of multiple offline (e.g., press, word-of-mouth, TV) and online (e.g. consumer ratings, YouTube Advertisement) information cues, from an online reputation on company review sites, which can be either in accordance with the pre-existing impressions or not. For the sake of simplicity, I refer to reputation on online company rating sites as “online reputation”, while using “offline reputation” to describe pre-existing evaluative judgements – regardless of the fact that “offline reputation” in that sense may be a result of offline and online information cues.

Signaling Theory

One stream of theory is particularly important to understand the effects of corporate reputation: Signaling theory. Signaling theory builds upon information asymmetry in imperfect markets and describes how labor market participants (both job seekers and employers) gain information about other market constituents when attributes are not directly observable (Connelly et al. 2011; Spence 1973). Without prior knowledge, job seekers cannot accurately evaluate employer attributes (such as fair pay, good treatment of employees etc.). In a similar vein, employers cannot accurately assess an applicant’s potential performance. To this end, both parties send signals to the market. Job seekers use college or University degrees, certificates, and references from former employers as signals (Alós-Ferrer & Prat 2012). Employers, in turn, predominantly rest on their good reputation that they have built over years, and additionally make use of evaluative certificates such as “Best Places to Work” (Dineen & Allen 2016).

Signaling theory was also concerned with a dynamic view on labor market systems. When the number of parties that use signals increase, and when these signals are known to lead to success, the value of a particular signal will diminish (Bangerter et al. 2012; Taj 2016). As a consequence, labor market participants start investing in acquiring additional signals (Dineen & Allen 2016). These additional signals may involve employee ratings on company review sites, which are of high importance to this thesis.

Online Reputation, Recruitment, and Employee Behavior in Social Media

With the rise of e-commerce and social media, new challenges for companies emerged. Among these multiple challenges, two are of particular importance to this thesis. The first challenge arises from employee behavior in social media that has detrimental effects on a company’s reputation. The second – and somewhat related – challenge pertains to the recruiting of new employees, which is more and more influenced by how a company is perceived online.

As already discussed in the introduction, employees use social media such as Facebook, Twitter or Instagram in their professional, but even more in their private life. In addition, employees’ visibility differs tremendously, ranging from employees who might work for a car manufacturer as blue-collar workers, who typically do not get much public attention, to employees that might be considered the face

of the company (Strasser & Bartoschak 2019). Despite this range of visibility, we find multiple instances of employee behavior that resulted in reputational damage – regardless of employee positions. Some notable examples include (in part taken from Walsh et al. 2019):

- In 2016, an Atlanta-based Bank of America employee was fired after she posted a racist rant on Facebook (Abrahamson 2016).
- A French soccer player playing for a German soccer team insulted social media followers with obscenity-laden posts after they berated him for posting pictures of a \$1000 gold-coated steak dinner (Hodgetts 2019).
- In early 2020, Jürgen Klinsmann, coach of Hertha BSC, quit his job using Facebook, without prior notifying his employer, which caused enormous media interest to the detriment of the football club and the coach (Löer 2020).

Thus, employee behavior that infringes social (or particular online) norms can be problematic for the employee (e.g., written warning, dismissal) and for the company (e.g., bad press, firestorms, decline in sales). Thus, one part of this thesis is devoted to providing a better understanding, of how employees use social media and what is needed to build company reputation-related social media competence (RSMC).

Online reputation, which is partly generated through a firm's own employees, is also of high importance for recruiting talents. Especially marketing and human resources (HR) practitioners as well as the business press highlight the importance of hiring high potentials (e.g., Muratbekova-Touron, & Galindo 2018; Weitzel et al. 2009; Wilden et al. 2010). Recruiting talents is the basis of future knowledge creation and innovation and ultimately results in competitive advantages (Sommer et al. 2017). To attract talents, companies typically follow two roads that interact with each other: Actively searching for talents on social media sites ("active sourcing") and nurturing a favorable reputation (Auger et al. 2013). While the first facet is controlled by the firm, the firm's reputation is not fully under a company's control due to the multiple influences from offline and online channels (Xie & Lee 2015).

A specific form of social media that has yet received limited attention are online company rating platforms, such as glassdoor.com or kununu.de (Evertz et al. 2019; Könsgen et al. 2018). Those platforms collect opinions and ratings from multiple former and current employees about their experiences with the company (Bondarouk et al. 2014; McFarland & Ployhart 2015). These reports help job seekers to reduce information asymmetry typically inherent in job application processes by providing first-hand insights from those who really have work experiences at the institutions (Carpentier et al. 2019). Consequently, Aral et al. (2013, p. 7) emphasize that social media "are transforming the way in which jobs and talent get matched". In a similar vein, McFarland and Ployhart (2015, p. 1663) propose that social media "may radically transform the nature of the traditional candidate-employer relationship." For companies, however, such rating platforms represent a double edged-sword. On the one hand, they may further strengthen an already existing positive reputation through favorable reports

posted by satisfied employees. On the other hand, when employees share their bad experiences with the company, job seekers may be reluctant to apply, resulting reduced employer attraction, less applications overall and a less effective company recruiting process (Carpentier & Van Hoyer 2020). Thus, company rating platforms are becoming increasingly important for employer branding and marketing.

Despite growing interest in social media marketing in general and the role of social media in attracting talents in particular (e.g., Dabirian et al. 2017; Carpentier et al. 2019; Golovko & Schumann 2019; Holland & Jeske 2017; Maurer & Liu 2007; Purvis 2016), comparatively little research has explored the role of company rating platforms for an organization's recruiting process. Recent investigations point to the potential of displaying corporate reputation to job applicants through different channels. For example, Sommer et al. (2017) showed that organizational innovativeness – one of several facets that form the reputation perceptions in the eye of the customer (Walsh & Beatty 2007) – had a positive effect on employer attractiveness. Sivertzen et al. (2013) show that when firms use social media, it increases job applicant's intentions to apply for a job. Similarly, Golovko and Schumann (2019) demonstrate a positive effect of companies' Facebook presence on recruitment success. However, these literatures neither do explicitly address the role of company rating platforms nor do they cover the interplay between a pre-existing "offline" reputation and an employee-created "online" reputation on company rating platforms. This thesis aims to close some of these gaps.

OVERVIEW OF CONTRIBUTIONS

This thesis consists of three blocks. Block 1 consists of a single paper only, but lays the foundation for the concept of *perceived external reputation (PER)*, which is a construct that captures how employees think outsiders view their employing organization (Helm 2013). This construct is important as several favorable positive consequences arise when employees think others have a good impression of their employer. Among these positive outcomes are organizational citizenship behavior, reduced quitting intentions, and pride (Carmeli 2005; Helm 2011; Schaarschmidt et al. 2015). Block 2 builds the core of this thesis and is devoted to employee behavior in social media. Notwithstanding, PER is one of many drivers that explain such social media behavior such as supportive Twitter usage or community norm adherence. Block 2 also reports on efforts to develop, validate, and cross-culturally replicate a measurement instrument to assess employees' company-related social media competence. Finally, block 3 is devoted to consumer reactions to employee behavior and online reputation as a signal and provides examples from job seekers and their perceptions of online reputation on company review sites, from patients that search for appropriate physicians on physician rating platforms, and from consumers that share their perceptions of online and offline reputation. Figure 1 provides an overview on the different publications that contributed to this thesis. In the following, I will provide a short summary of each contribution.

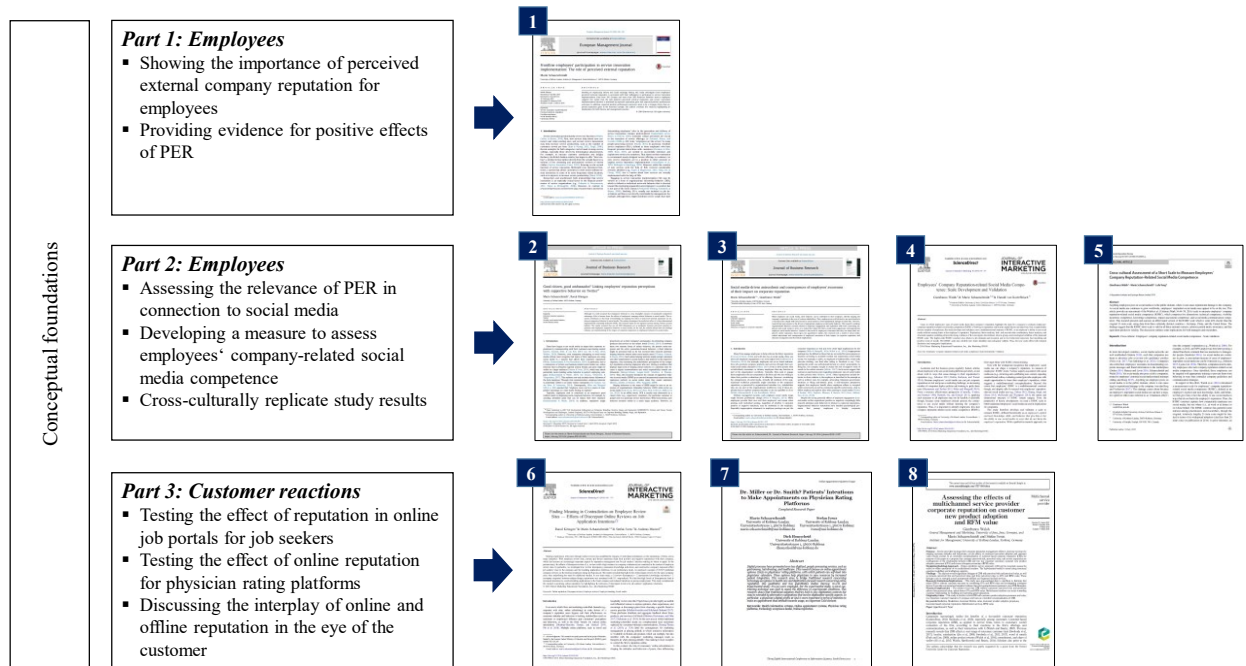


Figure 1. Thesis overview

Frontline employees' participation in service innovation implementation: The role of perceived external reputation

The first contribution is devoted to the positive effects of PER in a non-social media context. PER refers to a perception of how employees think their employer is perceived by the wider public. This study draws upon social identity theory to explain how employees typically form intentions to be part of a winning team. In return for an increase in a person's self-reflection (through being also a winner), employees start giving something back. The positive effects of PER have been shown in relation to increased organizational citizenship behavior and reduced turnover intention. However, few studies have looked at positive effects that also affect possible customers. Thus, this article investigated the effect of PER on employees' willingness to help implementing service innovations. In two studies, one paper-and-pencil study in the fashion retailing industry, and one study using an online sample, I find support for a positive effect of PER on service innovation implantation.

Good citizen, good ambassador? Linking employees' reputation perceptions with supportive behavior on Twitter

The second article of this selection is devoted to linking PER and supportive behavior in social media. People help other people in multiple ways via social media, such as sharing links, sharing important information, and answering questions. The idea behind this study was to test two aspects. First, is the level of PER related to supportive behavior in social media? If this question can be answered with yes,

then companies might develop an image as a firm that has employees who care. Second, what mechanisms explain the relation between PER and supportive behavior in social media? Here, a three-dimensional concept of organizational citizenship behavior was used, which consisted of the three different targets: co-workers, the company, and customers. The results of two quantitative studies show that organizational citizenship behavior is an important mediator between PER and supportive behavior in social media, but that not all targets of organizational citizenship behavior exhibit an indirect effect. In particular, organizational citizenship behavior that is directed to the employing organization has no significant indirect effect on supportive behavior in social media.

Social media-driven antecedents and consequences of employees' awareness of their impact on corporate reputation

Employees' impression of their own employer can have effects on important downstream variables such as turnover intention and pride. However, less is known about how employees' perceptions of their company as having a high reputation for their online appearance is affecting downstream variables. When employees work for a company with a not up-to-date website, for example, feelings such as shame might evolve. The core of this article is the concept of employees' awareness of their impact on corporate reputation, which might be induced by PER, but also other factors that are related to their company's online appearance (e.g. pride in online appearance). This article builds upon one cross-sectional, and one predictive study to explain how employees' awareness of their impact on corporate reputation is influenced by their impressions of their company's online appearance, and how this awareness affects community norm adherence, an employee behavior that should reduce the risk of reputational damage.

Employees' company reputation-related social media competence: Scale development and validation

Employees that misbehave in social media might be a liability for companies. Thus, identifying those who might potentially display harmful behavior might be relevant from a managerial point of view. Once identified, these employees could receive specific training. While there are multiple approaches to measure company reputation as such (see Sarstedt et al. 2013), no measure exists to assess employees' company-related social media competence (RSMC). Accordingly, the aim of this article is to develop and verify a scale to measure such as competence. We followed established scale development procedure and started a qualitative effort to identify relevant dimensions. We ended up in five dimensions: Technical competence, communication competence, visibility awareness competence, engagement competence, and impact assessment competence. For each dimensions, a set of items was developed, which was subsequently reduced to 21. The quantitative part of scale purification, verification, and testing for nomological validity consist of four different studies. The results show that

the scale works well in academic contexts. Apart from this thesis, the project Webutatio worked towards establishing the scale in management praxis.

Cross-cultural assessment of a short scale to measure employees' company reputation–related social media competence

Social media use is not identical in all areas of the world. In some countries, social media use is much more prevalent than in others. In addition, countries such as China have more governmental influence in social media use than others. Thus, it would be rather naïve to expect the RSMC scale works equally well in all cultural contexts. To this end, this study takes data from Walsh et al. (2016), which was collected in Germany, and compared it to data from U.S. and China. In addition, the aim of the paper was to further reduce scale length, while upholding the same level of internal consistency. The results show that in principle, the scale is applicable in Germany, U.S., and China. However, the results also indicated that answering behavior of Chinese respondents differed slightly compared to Germany and U.S. For example, two factors received comparatively low factor loadings in the Chinese sample. The study also provided support for the validity of a 12-item RSMC short scale.

Finding meaning in contradiction: Effects of discrepant online reviews on job application intentions

Research asserts that there is a lack of studies pertaining to the effects of company reputation on employer review sites. In addition, while concepts such as valence have been intensely studied for consumer ratings, the role of discrepant online reviews is less understood. With discrepant, we mean ratings that have the identical numerical value, but consist of very good and very bad written reviews in one case and in comparatively identical written reviews in another case. A pre-study uses more than 20,000 reviews taken from the German company rating portal kununu.de to assess average company ratings as well as inherent valence. This information then builds the basis to design different scenarios for a subsequent online experiment. The results show that – given the same numerical company review – job seekers evaluate discrepant reviews more negative than coherent reviews when it comes to their application intention. This study is among the first that is devoted to consumer-created company online reputation in the recruiting sector.

Dr. Miller or Dr. Smith? Patients' Intentions to Make Appointments on Physician Rating Platforms

The role of company or product ratings for an online reputation has been widely researched. However, less is known about the effects of online ratings in the health care sector. In particular, platforms such as Jameda.de provide opportunities to share experiences about a physician and also to rate them. These ratings depict an important information for those who are in need for a physician, most likely a specialist.

This article reports on three studies that are designed to deepen the understanding of the influence of patient ratings in a health care scenario. Study 1 is qualitative in nature and investigates different motives for patients to use or to avoid rating platforms when they search for a physician. Study 2 rests on the technology acceptance model and shows that in addition to perceived usefulness and perceived ease of use (the two dominant drivers in technology adoption), physician profile quality has also a significant on using intentions. Finally, Study 3 uses an experimental design to assess the relative strength of physicians' online reputation (reflected through their rating) on the intention to make an appointment, while controlling for factors such as physician sympathy. The results further confirm, that profile reputation is the dominant factor when patients make their decisions on where to make an appointment.

Assessing the Effects of Multichannel Service Provider Corporate Reputation on Customer New Product Adoption and RFM Value

Finally, the effect of corporate reputation on consumer responses can be different for different channels. Thus, in this article we compare the effects of customer-based corporate reputation on risks and product adoption proneness for offline and for online channels. This study rests on a survey of 1,001 shoppers who indicated where (they could choose from six well-known companies) and through which channel (online vs. offline) they gained their shopping experience. Participants then answered in relation to one particular company and to one particular channel. The contributions of this research involve testing the effect of customer-based corporate reputation on previously untested outcomes such as customer lifetime value (measured through RFM method) and product adoption proneness as well as introducing a sixth dimension of the customer-based corporate reputation scale. The main contribution, however, lies in identifying differences in path strength between online and offline channels.

In sum, the results of this thesis results are important for corporate reputation, employer branding and practical marketing management alike. From a theory perspective, we add to the increasing body of literature that is devoted to the interplay of online and offline reputation in social media (e.g., Riquelme et al. 2016; Schaarschmidt & Walsh 2018; Walsh et al. 2018). From a recruitment perspective, the results might help HR managers to find the right strategies to fill the talent gap (Leeflang et al. 2014), especially when a company's online reputation is partly shaped by own online articulations by own employees (Ivens et al. 2019; Korzynski et al. 2019).

CONCLUDING REMARKS

The contributions collected in this thesis deal with different aspects related to corporate reputation, especially in the digital age, social media, and employee behavior that potentially affects a firm's reputation. The contribution of this thesis involves seven journal articles and one conference paper. In

total, the data used for these contributions comprise 59 qualitative, semi-structured interviews (of different length), 4674 individual answers to questionnaires and online experiments (only main studies, no pretests), and 25827 reviews taken from kununu.de.

Of course, there are other works with similar aims and I refer the reader to the corresponding discussions on related works in the individual contributions for detailed analyses. Recent works of the author that address the same challenges but are not contained in this thesis can also be found in Ivens et al. (2015), Ivens et al. (2019), Schaarschmidt et al. (2015), Schaarschmidt and Ivens (under review), and in multiple unranked conference proceedings such as American Marketing Association (AMA) conference, and AMS World Marketing Congress.

Finally, apart from those people already mentioned in the disclaimer, I would like to thank some more persons for supporting me in various (academic) ways. In particular, I would like to thank Matthias Bertram, Sonja Christ-Brendemühl, and Dirk Homscheid for fruitful discussions and support. I further would like to thank the University of Koblenz-Landau, especially Fachbereich 4 and Institute for Management, for providing me with a very friendly and research-oriented atmosphere. My family will receive specialized, verbal thanks.

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LIST OF PUBLICATIONS FOR HABILITATION

Employees' perceived external corporate reputation

A: Schaarschmidt, M. (2016). *Frontline employees' participation in service innovation implementation: The role of perceived external reputation*. **European Management Journal**, 34 (5), 540-549. (VHB-JQ: B, CORE: --, ABDC2016: B)

Corporate (online) reputation and employee behavior in social media

B: Schaarschmidt, M. and Könsgen, R. (2019). *Good citizen, good ambassador? Linking employees' reputation perceptions with supportive behavior on Twitter*. **Journal of Business Research**, forthcoming (VHB-JQ: B, CORE: --, ABDC2016: A)

C: Schaarschmidt, M. and Walsh, G. (2019). *Social media-driven antecedents and consequences of employees' awareness of their impact on corporate reputation*. **Journal of Business Research**, forthcoming (VHB-JQ: B, CORE: --, ABDC2016: A)

D: Walsh, G., Schaarschmidt, M. and Von Kortzfleisch, H. (2016). *Employees' company reputation-related social media competence: Scale development and validation*. **Journal of Interactive Marketing**, 19, 46-59. (VHB-JQ: B, CORE: --, ABDC2016: A)

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Consumer reactions to online reputation

F: Könsgen, R., Schaarschmidt, M., Ivens, S. and Munzel, A. (2018). *Finding meaning in contradiction: Effects of discrepant online reviews on job application intentions*. **Journal of Interactive Marketing**, 43, 165-177. (VHB-JQ: B, CORE: --, ABDC2016: A)

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PUBLICATIONS IN ORIGINAL FORMAT

All publications are provided in the format in which they appeared in the respective journal. However, due to copyright restrictions, only the first page of each journal publication will be displayed. Full versions are available under the following links.

- A: Schaarschmidt, M. (2016). *Frontline employees' participation in service innovation implementation: The role of perceived external reputation*. **European Management Journal**, 34 (5), 540-549. <https://www.sciencedirect.com/science/article/abs/pii/S0263237316300111>
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PAPER A

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Frontline employees' participation in service innovation implementation: The role of perceived external reputation



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ABSTRACT

Drawing on expectancy theory and social exchange theory, this study investigates how employees' perceived external reputation is associated with their willingness to participate in service innovation implementation. Data from 150 German and more than 200 American frontline service employees supports the notion that the link between perceived external reputation and service innovation implementation behavior is mediated by expected reputation gains and expected positive performance outcomes. In addition, expected positive performance outcomes seem to be a stronger driver than expected reputation gains in the American sample. The authors conclude this study by highlighting its implications for both theory and management practice.

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1. Introduction

Service innovation predominantly serves two functions (Wilder, Collier, & Barnes, 2014). First, new services help attract new customers and retain existing ones, and second, service innovations may help increase service productivity, such as the number of customers served per hour (Rust & Huang, 2012; Singh, 2000). Recent examples for both categories can be found in many service settings, especially those driven by technological advancements. For example, to increase customer satisfaction and delight, Burberry, the British fashion retailer, has begun to offer “direct-to-buy”, a method to buy fashion directly from the catwalk based on a mixture of live streaming and personalized versions of shown clothes (Service Innovation Cases, 2015). Focusing on the second function of service innovation, McDonald's has introduced Fast-Order, a system that allows customers to order meals without human interaction in some of its most frequently visited locations, such as in airports, to increase service productivity (Blank, 2014).

Researchers and practitioners both acknowledge that service innovation is an especially crucial factor in the financial performance of service organizations (e.g., Ordanini & Parasuraman, 2011; Paton & McLaughlin, 2008). However, in contrast to research that focuses on firm-level data, research that is devoted to

determining employees' roles in the generation and delivery of service innovations remains underexplored (Cadwallader, Jarvis, Bitner, & Ostrom, 2010). Customer contact personnel are crucial to the execution of service offerings; as Zeithaml, Bitner, and Gremler (2006, p. 352) state, “employees are the service” in many people-processing services (Walsh, 2011). In particular, frontline service employees (FLEs), defined as those employees who have frequent personal interactions with customers (Karatepe & Kilic, 2009; Stock, 2015), are needed to successfully introduce and explain new services to customers. Thus, based on their motivation to recommend newly designed service offerings to customers (or not), service employees are in a position to either promote or impede service innovation implementation (Cadwallader et al., 2010; McKnight & Hawkrigg, 2005). However, while the creation of new services with the help of FLEs received considerable research attention (e.g., Engen & Magnusson, 2015; Yang, Lee, & Cheng, 2016), less is known about how services are actually implemented with the help of FLEs.

Engaging in service innovation implementation (SII) may be viewed as a form of organizational citizenship behavior (OCB), which is defined as individual extra-role behavior that is directed toward the employing organization and employees' co-workers but is not part of the work contract (Podsakoff, Whiting, Podsakoff, & Blume, 2009). Similarly, SII is usually not included in job descriptions and thus is not directly controllable by management. For example, although firms might distribute service scripts that state

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PAPER B

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Good citizen, good ambassador? Linking employees' reputation perceptions with supportive behavior on Twitter[☆]

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ABSTRACT

Although it is well accepted that employees' behavior is a key intangible resource of sustainable competitive advantage, little is known about the effects of employees' company-related behavior in social media. This research contributes to this body of knowledge by studying the effect of perceived external reputation on employees' supportive behavior in social media. The authors investigate the mediation effect of a three-dimensional organizational citizenship behavior (OCB). The research based on two separate surveys among Twitter account holders. The results revealed that not all OCB dimensions act as mediators between perceived external reputation and employees' supportive behavior in social media. At the end, the authors discuss how the findings enhance our understanding of the impact of corporate reputation on employees' behavior in social media.

1. Introduction

Firms have begun to use social media to shape their corporate reputations by communicating with their customers and sharing content (Gretry, Horváth, Belei, & van Riel, 2017; Lee, Oh, & Kim, 2013; Walden, 2018). However, even companies attempting to avoid social media entirely must recognize that many of their employees are using social media in a manner that affects their corporate reputations (Walsh, Schaarschmidt, & Von Kortzfleisch, 2016). In particular, due to a coalescence of private and business-related social media use, online behavior that is primarily targeted toward friends and peers might be visible to a larger audience (Hansen & Levin, 2016), which may attach potentially norm-violating online behavior to posters' employing company (Schaarschmidt & Walsh, 2019; van Zoonen, Verhoeven, & Vliegthart, 2017). This audience not only includes direct followers of the focal employee: Through viral communication, employee behavior is potentially visible to an entire online community (van Zoonen, van der Meer, & Verhoeven, 2014). Consequently, Miles and Mangold (2014, p. 402) asserted that "employee voice can be a source of competitive advantage or a time bomb waiting to explode."

Typically, employees seek to contribute to an employer's good (online) name by displaying norm-congruent behavior, for example, by avoiding debatable posts that can be linked with their employer (Schaarschmidt & Walsh, 2019). In addition, employees might

proactively act as their company's ambassador, by promoting company products and services in the online world (Dreher, 2014). In between these two extreme forms of online behavior, the passive norm-congruent and the active promotion-focused behavior, a third behavior might be prevalent that so far has received little research attention: helping behavior toward other social media users (O'Connor, Schmidt, & Drouin, 2016). Such online helping behavior might prompt customers and other stakeholders in social media to link behavior to the respective employer, thus increasing the stakeholders' perceptions of the company's reputation as having employees who care. Having a workforce that displays high levels of helping online behavior is a desirable state because it signals trustworthiness and social responsibility toward constituencies (Edinger-Schons, Lengler-Graiff, Scheidler, & Wieseke, 2018). Thus, this research introduces the concept of supportive behavior in social media (SBSM) as an enacted interpersonal transaction that employees perform on social media when they render assistance (Barrera, Sandler, & Ramsey, 1981; Vangelisti, 2009).

Helping behaviors in the sense of SBSM might be seen as an extension of organizational citizenship behavior (OCB) while active on social media (Chan & Lai, 2017; Lee, Nam, Park, & Ah Lee, 2006; Lii & Lee, 2012). In an offline world, OCB is usually only observable by a closed circle (e.g., supervisors, coworkers, the particular customer or people next to a particular service interaction). With social media, such behavior becomes visible to a much larger audience. However, no

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Social media-driven antecedents and consequences of employees' awareness of their impact on corporate reputation

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ABSTRACT

When employees use social media, their behavior can be attributed to their employer, thereby shaping the company's reputation in the eyes of various stakeholders. Thus, employees are well advised to use social media in a way that does comply with social norms in social media to avoid reputational damage for their firm. However, research has been anemic to the drivers of appropriate employee social media behavior. This research combines organizational behavior research related to employee engagement and reputation with work concerning employees and social media to arrive at a model that relates the firm's social media appearance with appropriate employee social media behavior. Central to this model is employees' awareness that they can shape their employer's online reputation. Based upon two quantitative studies, this research tests a model of social media-related antecedents and consequences of employees' awareness of their impact on corporate reputation, and discusses managerial and theoretical implications.

1. Introduction

Many firms engage employees to help cultivate the firms' reputation (Cravens & Oliver, 2006), and with the rise of social media, firms can take such employee engagement to an even higher level (Leftheriotis & Giannakos, 2014). For example, employees can act as brand ambassadors who promote company products and services through their personal social media channels (Dreher, 2014). Even in their private roles as individuals, consumers, or citizens, employees thus may function as part of the organization's workforce. Typically, firms seek to engage those employees who are committed to the firm and who are willing to share their positive evaluations of its offerings. However, considering the omnipresence of social media, virtually all members of the organizational workforce potentially might contribute to the company's reputation, as perceived by organizational outsiders (i.e., stakeholders who are not part of the organizational workforce), even if those employees lack an explicit company mandate or are not qualified to do so (Walsh, Schaarschmidt, & von Kortzfleisch, 2016).

Without managerial controls, such employee social media usage might become problematic though (Miles & Mangold, 2014). When employees provide their own and their employer's real names when posting, each individual posting, regardless of whether it expresses positive or negative sentiment, may be attributed to the employer. Especially inappropriate statements in employee postings can put the

corporate reputation at risk and even create legal implications for the company (Miles & Mangold, 2014; Walsh et al., 2016). Inappropriate postings may be defined as those that are not suited for some purpose or situation according to accepted societal and mainstream social media norms. For example, in 2016, an employee of Addition-Elle, which sells plus-size clothing, was fired after taking to Facebook to say: "Conquering the world, one well-dressed fat lady at a time"; presumably, by firing her, the company sought to reduce the risk of negative word of mouth in the online universe (McKee, 2017). Such moves suggest that normative expectations exist regarding employees' uses of social media in their private roles (Walden, 2018). These expectations include behavior in direct relation to the employer as described in the example as well as indirect ones, for example, advocating inhumane government decisions or liking anti-Semitic posts. A risk-reduction perspective suggests that employers benefit when employees adhere to accepted wider social norms as well as community-specific social norms—that is, follow implicit and explicit rules when posting in social media (Fischer & Reuber, 2011; Pagliaro, Ellemers, & Barreto, 2011; Roos, Gelfand, Nau, & Lun, 2015).

Despite the strong potential effects of employee engagement in social media on firm reputations (positive or negative), surprisingly little research addresses such behaviors in relation to corporate reputations. Organizational behavior researchers have detailed psychological processes that prompt employees to display corporate

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PAPER D

Walsh, G., Schaarschmidt, M. and Von Kortzfleisch, H. (2016). *Employees' company reputation-related social media competence: Scale development and validation*. **Journal of Interactive Marketing**, 19, 46-59. (VHB-JQ: B, CORE: --, ABDC2016: A)



Employees' Company Reputation-related Social Media Competence: Scale Development and Validation

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Abstract

Cases in which employees' uses of social media harm their company's reputation highlight the need for a measure to evaluate employees' company reputation-related social media competence (RSMC). Drawing on reputation and human capital theory and data from four occupationally diverse samples of employees, this study develops and validates a new, multidimensional measure of RSMC, or an employee's ability to use social media without causing harm to the employer's reputation. Exploratory factor analyses, first- and second-order confirmatory factor analyses, and structural equation modeling all provide strong evidence of the convergent, discriminant, known-group, and nomological validities of the proposed RSMC scale. The higher-order RSMC construct also relates to job demands and resources and to two behavioral outcomes: bad mouthing and positive word of mouth. The RSMC scale also exhibits test–retest reliability and ecological validity. Thus, the new scale offers both research directions and managerial implications.

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Keywords: Employees' company reputation-related social media competence; Scale development; Validation

Introduction

Academia and the business press regularly feature articles about employees who use social media platforms privately, at and about work in ways that cause damage to their organization's reputation (e.g., Johnston 2015; Rokka, Karlsson, and Tienari 2014). Because employees' social media use can put corporate reputations at risk and poses a marketing challenge, an increasing number of companies deploy policies and training to guide these uses (Macnamara and Zerfass 2012; Miles and Mangold 2014). From a resource effectiveness perspective (Connolly, Conlon, and Deutsch 1980; Hartnell, Ou, and Kinicki 2011), applying such measures to all employees may not be feasible or desirable though, because some employees already possess the competence to use social media without harming the company's reputation. Thus, it is important to identify employees who lack company reputation-related social media competence (RSMC),

then target them with RSMC-related training.

Even with the widespread recognition that employees' social media use can shape a company's reputation, no measure of employees' RSMC exists. Various aspects associated with social media use (e.g., retrieving and contributing new content, reposting material found online, evaluating content) provide employees with ample opportunities to harm their employer's reputation, which suggests a multidimensional conceptualization. Beyond this notion that employees' RSMC is a multidimensional construct though, and despite calls for research into employees' reputation-relevant social media use (e.g., Dekay 2012; Huang, Singh, and Ghose 2015; McDonald and Thompson 2015), the nature and dimensional structure of RSMC remain opaque. From the perspective of theory development, we need a RSMC scale to better understand employees' social media use and its implications for companies.

This study therefore develops and validates a scale to measure RSMC, defined theoretically as *an employee's explicit and tacit knowledge, skills, and behavior that give him or her the ability to use social media in ways that do not harm the employer's reputation*. With a qualitative research approach, we

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PAPER E

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Cross-cultural Assessment of a Short Scale to Measure Employees' Company Reputation-Related Social Media Competence

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Abstract

Anything employees post on social media is in the public domain, where it can cause reputational damage to the company. As social media use continues to grow worldwide, employees' imprudent social media uses appear to be on the rise. This article provides an assessment of the Walsh et al. (*J Interact Mark* 36:46–59, 2016) scale to measure employees' company reputation-related social media competence (RSMC), which comprises five dimensions: technical competence, visibility awareness competence, knowledge competence, impact assessment competence, and social media communication competence. This research presents and assesses an abbreviated version of the RSMC scale which is some 40% shorter than the original 21-item scale, using data from three culturally distinct countries—Germany, China, and the United States. The findings suggest that the RSMC short scale is valid in all three national contexts, achieves partial metric invariance, and has equivalent predictive validity. The discussion outlines some implications for both managers and researchers.

Keywords Cross-cultural · Employees' company reputation-related social media competence · Scale validation

Introduction

In most developed countries, social media networks are well established (Statista 2019), such that companies use them to advertise jobs or review job candidates' profiles (Felix et al. 2017; Van Iddekinge et al. 2016). Companies also enlist their employees' assistance in disseminating corporate messages and brand information to the marketplace (Dreher 2014; Hansen and Levin 2016; Schaarschmidt and Walsh 2018). Yet social media also pose a risk to companies, related to employees' potential social media-related missteps (Jahng and Hong 2017). Anything an employee posts on social media is in the public domain, where it can cause legal or reputational damage to the company (van den Berg and Verhoeven 2017). This damage comes about because an employee's imprudent social media use can have a negative spillover effect (also referred to as 'irradiation effect')

onto the company's reputation (e.g., Walsh et al. 2006). For example, in 2016, an ESPN analyst was fired after posting a shared Facebook comment that was insensitive to transgender people (Sandomir 2016). As social media use continues to grow, a concomitant increase of cases of employees' imprudent social media use can be witnessed (e.g., Johnston 2015; Lyons et al. 2016). Therefore, companies need to identify employees who lack company reputation-related social media competence. Once identified, those employees can be targeted with appropriate training to prevent them from behaving in ways that contradict company guidelines and communication strategies.

In support of this effort, Walsh et al. (2016) introduced a measurement scale for employees' company reputation-related social media competence (RSMC), defined as an employee's explicit and tacit knowledge, skills, and behavior that give him or her the ability to use social media in ways that do not harm the employer's reputation. Thus, the RSMC construct captures how competently employees use social media, but not where (i.e., at work or at home) or on whose behalf. The RSMC construct has garnered some interest among practitioners and researchers, though the original, relatively lengthy 21-item scale might be limited in terms of its widespread adoption (cited less than 20 times since its publication in 2016). In prior literature, an

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PAPER F

Könsgen, R., Schaarschmidt, M., Ivens, S. and Munzel, A. (2018). *Finding meaning in contradiction: Effects of discrepant online reviews on job application intentions*. **Journal of Interactive Marketing**, 43, 165-177. (VHB-JQ: B, CORE: --, ABDC2016: A)



Finding Meaning in Contradiction on Employee Review Sites — Effects of Discrepant Online Reviews on Job Application Intentions[☆]

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Abstract

Sharing experiences with peers through online reviews has amplified the impacts of individual articulations on the reputations of firms across many industries. With employee review sites, current and former employees share their positive and negative experiences with their company, which has become an increasingly important aspect for reputation management and for job seekers' decision-making on where to apply. In the present study, the effects of discrepant reviews (i.e., reviews with a high variance in company evaluations) are examined in the context of employer review sites. In particular, we investigate how review discrepancy, persuasion knowledge activation, and constructive company responses affect job seekers' trust in the company and the resulting application intentions. In our preliminary study, we analyzed a sample of 25,827 published company reviews on the German employee rating site Kununu.de. The results revealed that high levels of discrepant reviews for the same company exist, thus underlining the need for additional studies. In our main study, a 2 (review discrepancy) × 2 (persuasion knowledge activation) × 2 (company response) between-subject-design experiment was conducted with 311 respondents. We find that high levels of discrepancies lead to increased intentions to avoid submitting applications to the focal company and reduced intentions to pursue employment. This study complements the research concerning online reputation by highlighting the relevance of discrepant reviews for job seekers' application intentions.

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Keywords: Online reputation; Discrepant reviews; Employer reviews; Employer branding; Social media

Introduction

In an era in which firm- and marketing-controlled channels (e.g., corporate web sites, online advertising) as main drivers of a company's reputation seem bygone and their effectiveness on consumer attitudes and behaviors is lacking, stakeholders (such as customers or employees) influence peer consumers' perceptions and behaviors, as well as the firms' brands via various online articulations (Huebner-Barcelos, Dantas, and Sénécal 2018; Pitt et al. 2018). Multiple online platforms, such as travel and

hospitality review sites like TripAdvisor, provide highly accessible and influential venues to express opinions, share experiences, and encourage or discourage peers from choosing a specific brand or service provider (Melián-González and Bulchand-Gidumal 2017). Those platforms distribute and aggregate feedback about firms, products, and services of all kinds (Dabirian, Kietzmann, and Diba 2017; Diekmann et al. 2014). In this new area in which traditional marketing-controlled media are complemented (and sometimes replaced) by consumer-initiated communications, Hennig-Thurau et al. (2010, p. 324) label the consequences for marketing management as playing pinball, in which extensive information is “available on brands and products which can multiply, but also interfere with the companies' marketing messages (such as bumpers do when playing pinball),” thus making it more complex to control the firm's reputation online.

In this context, the role of consumers' online articulations in shaping the attitudes and behaviors of peers, thus influencing

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PAPER G

Schaarschmidt, M., Ivens, S. and Homscheid, D. (2017). *Dr. Miller or Dr. Smith? Patients' Intentions to Make Appointments on Physician Rating Platforms*. **International Conference on Information Systems (ICIS)**, Seoul, South Korea. (VHB-JQ: A, CORE: A*, ABDC2016: --)

Dr. Miller or Dr. Smith? Patients' Intentions to Make Appointments on Physician Rating Platforms

Completed Research Paper

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Abstract

Digital processes have permeated even less digitized, people-processing services, such as gastronomy, hairdressing, and healthcare. This research focuses on online appointment systems (OAS) on physicians' rating platforms, with which patients can self-book into physicians' calendars. These systems help physicians to save resources by increased patient integration. This research aims to bridge traditional research concerning technology acceptance in health care and digitization-focused research concerning online reputation. One qualitative and two quantitative studies (Survey: N=276 and Experimental study: N=130) were employed. For the experimental study, a novel eye-tracking technique was used to assess the difference in experimental conditions. This research shows that traditional adoption theories hold in new digitization contexts but may be extended by alternative explanations that involve digitization-specific aspects. In particular, a physician's digital profile at OAS is more important in terms of intention to make an appointment than attitude towards usage, an important TAM element.

Keywords: Health information systems, Online appointment systems, Physician rating platforms, Technology acceptance model, Online reputation

Introduction

The opportunities enabled by digitization have reached the health care sector. Over decades, we have observed the trend of technology supporting or even substituting for the execution of formerly personnel-intensive services in many industries (e.g., Walker et al. 2002). While this trend started with self-service technologies, such as automated teller machines, and moved toward self-check-in terminals for flights (Cunningham et al. 2005), with the rise of the Internet, more and more of these services are offered online – making self-service independent from time and space. As a comparatively new trend, digital processes have permeated even less digitized, people-processing services, such as gastronomy, hairdressing, and health care (Rosner et al. 2014; Schaarschmidt and Hoerber 2017).

This research focuses on platform-based online appointment systems (OAS) for physicians, a special form of digitization in a people-processing service. With OAS, patients can self-book into multiple physicians' calendars (in contrast to an appointment system hosted by one practice) to make an appointment, which affects both patients and physicians. For patients, these systems are a viable alternative to making appointments via telephone; as with other online and mobile services, this form of booking is perceived as more convenient (Peek et al. 2014). For physicians, these systems help using available resources more efficiently. First, doctors' receptionists are no longer occupied by telephone calls and may concentrate on more health-related issues and patient treatments. Second, OAS may reduce no-shows (Green and Savin 2008). For example, Lim and Varkey (2004) report that software solutions could reduce no-shows by approximately 35 % through email reminders. Third, software support could help physicians optimize patient scheduling because with online booking, patients may directly indicate their desires. Fourth, such systems could enhance patients' overall satisfaction because patients are not caught up in telephone call waiting loops. Finally, OAS seem to strengthen the doctor-patient relationship by increasing economic returns and social returns, such as wealth and reputation, as indicated by Guo et al. (2017).

Complex software solutions for appointment management, which are often integrated in health information systems (Handayani et al. 2017), are often not affordable for small medical practices, which is why platform-based OAS, such as the German platform Jameda (www.jameda.de), have emerged. In addition to the advantages of software-support as such, platform-based OAS are equipped with online rating functionalities such that patients can evaluate and rate their treatment and therefore help reducing search costs for other patients (Chen et al. 2011; Terlutter et al. 2014). On the other hand, in contrast to classical health information systems hosted by a single doctor, with platform-based OAS, health care providers are exposed to an open competition for patients.

While platform-based OAS reduce upfront investment, usually platform operators still offer a pay-per-use option, which creates obligations for the effectiveness of such systems. Specifically, investments in any form of OAS only make sense when patients switch their behavior from making telephone reservations to using OAS, both for searching and booking a physician (Simon and Usunier 2007). However, as Schaarschmidt and Hoerber (2017) highlight, it is difficult to convince consumers to switch to digital channels when mature alternatives such as phone conversations are available. To this end, knowledge about the factors that drive patients' use of platform-based OAS is needed for two reasons: (1) Platform operators must disclose how many patients switch from telephone reservations to OAS to legitimize their monthly subscription and (2) physicians must encourage OAS usage and implement these new services to capitalize on their investments.

Past research on health service adoption has mainly focused on the technology acceptance model (TAM) to explain why individuals start using innovative services (e.g., Aggelidis and Chatzoglou 2009; Dünnebeil et al. 2012; McKechnie et al. 2006). Similarly, research on website usage has focused on TAM (Castañeda et al. 2007). However, in the context of OAS, it is not only important whether patients just use the platform-based website as predicted by the TAM, for example, to search for appropriate specialists. Moreover, patients also (1) can choose among physicians, who can be evaluated based on their online profiles and (2) should actually make an online appointment to explore the system's full potential to increase physicians' service productivity (Rust and Huang 2012). In both cases, patients have alternatives, a fact that reinforces competition among health care providers. Thus, additional platform-specific factors that extend or complement TAM must be considered when studying patients' use of platform-based OAS. This study therefore seeks to combine literature concerning TAM in intermediaries, such as online platforms (e.g., Wang et al. 2016; Weerakkody et al. 2013), and literature that is related to service vendor online reputation (Ivens and Schaarschmidt 2015), to arrive at a post-TAM picture of appointment making in a digital health

care world. Specifically, this research rests on three studies: Study 1 is a qualitative study that aims at identifying platform-specific factors that influence patients' use of OAS; Study 2 is a survey among respondents familiar with Internet offerings that investigates the influence of platform-specific factors and factors associated with TAM on the intention to use an OAS for physician appointments; and finally, Study 3 is a scenario-based experiment that assesses patients' tendency to make an online reservation based on physicians' profiles and online reputation on a platform-based OAS. Together, the three studies provide novel insights at the intersection of classic technology acceptance research and upcoming issues in online reputation research to arrive at a full picture of drivers of patients' OAS usage (and appointment making) in an era where customers have started to gain power even in rather traditional, monopole-like businesses such as health care.

Theoretical Background

The goal of this research is to depart from TAM-related aspects of OAS usage to arrive at a picture that involves rating platform-specific elements of appointment making. Thus, while it is important to not ignore TAM and related aspects for predicting OAS acceptance, it is not the sole theoretical basis of this research. In particular, in Study 3 specifically, we aim to control for TAM elements such as attitudes, but do not use TAM as a theoretical anchor. In the light of these goals, our theoretical background is split into two parts (predominantly to introduce Studies 2 and 3 later): 1) Technology Acceptance and Self-Services and 2) Online Reputation.

Technology Acceptance and Self-Services

Two literature streams serve as a lens through which to examine OAS usage: Literature concerning TAM (Davis 1989) and literature on technology-supported self-services, extended by aspects of online interaction (Bitner et al. 2002; Curran and Meuter 2005). TAM has been used in multiple settings to explain when and why individuals adopt new technologies or technical services. For example, TAM has been used to explain the adoption of online financial services (McKechnie et al. 2006), to predict the acceptance of mobile marketing and in the medical context to assess physicians' acceptance of telemedicine technology (Dünnebeil et al. 2012; Hu et al. 1999).

The core of TAM, which is based on the theory of reasoned action (Legris et al. 2003), suggests that actual technology use is a function of behavioral intention to use a system, which in turn is influenced by attitudes toward or against the respective technology. These attitudes are mainly driven by perceived ease of use (PEoU) and perceived usefulness (PU; Davis 1989).¹ Depending on the given technology context, PEoU and PU are, in turn, driven by multiple antecedents (Benbasat and Barki 2007). We submit that PU and PEoU are also strong drivers of interactive online service adoption in the context of OAS usage.

The second stream of literature that is of interest to this study is the marketing-inspired literature on self-service technologies. This stream of research rests on the notion that customers are no longer passive adopters of technology-based services but rather actively participate in service creation and delivery (Keh and Pang 2010; Meuter et al. 2000). Here, researchers highlight that customer involvement in service delivery consists of information sharing, responsible behavior, and personal interaction (e.g., Ennew and Binks 1999). We draw on both perspectives to investigate patients' use of OAS and their ultimate booking of physician appointments.

Online Reputation and Physician Profiles

We also integrate literature concerning service vendors' online reputation and associated online reviews (e.g., Chen et al. 2011). In times of online rating platforms and social media, service vendors' appearance in these media is of crucial importance. Reputation is a social-cognitive construct and consists of various impressions a stakeholder holds about a company (Dellarocas 2010). Reputation is further known to be

¹ We note that several extensions of TAM exist, for example, the extension by Davis himself (Venkatesh and Davis 2000). We do not report the full range of extensions here because this is not the focus of this research; however, we took them into account during the conceptualization phase. For an overview of TAM extensions, please see Legris et al. (2003) or Brown et al. (2010).

associated with numerous positive outcomes such as increased customer trust and commitment as well as increased spending and customer lifetime value (Ivens et al. 2015, Walsh et al. 2017). Thus, a favorable reputation should also be a desirable state for physicians.

With physician rating platforms, reputation in health care has been taken to the next level. As Jones et al. (2009, p. 928) highlight: “the way a company behaves on-line and is perceived by its wider audience is far more important than overt philanthropy, donations to charities, flashy websites or even annual CSR reports printed on recycled paper.” The same holds true for health care organizations including practices and single physicians (Grajales et al. 2014). With physician rating platforms, information provided by users act as real instances of reputation rather than proxies (Cain 2011; Marchiori and Cantoni 2011). However, while the advantages of social media and physician rating platforms have been described (e.g., Niehues et al. 2012; Terlutter et al. 2014), no research assesses the impact of physician profiles as reputation proxies on the likelihood to make business with the physician. Given this important oversight, this research aims to contribute to unravel the role of a physician’s reputation on rating platforms in turning rating platform visitors into paying patients. Thus, together, these three perspectives, that is, TAM, self-service adoption, and online reputation, contribute to a more fine-grained understanding of the use of OAS that involve online rating functionalities.

Conceptual Model and Hypotheses

To capture all aspects related to the research questions, we conducted three studies. Study 1 is a qualitative study that aims at identifying factors that drive OAS usage besides TAM aspects. Study 2 is a survey among patients to quantify the influence of TAM factors (in contrast to online-rating specific factors) on OAS usage. Finally, Study 3 is an online experiment showing how a physician’s reputation drives intentions to make an appointment. Figure 1 depicts how the studies are related to each other and its necessity for this research.

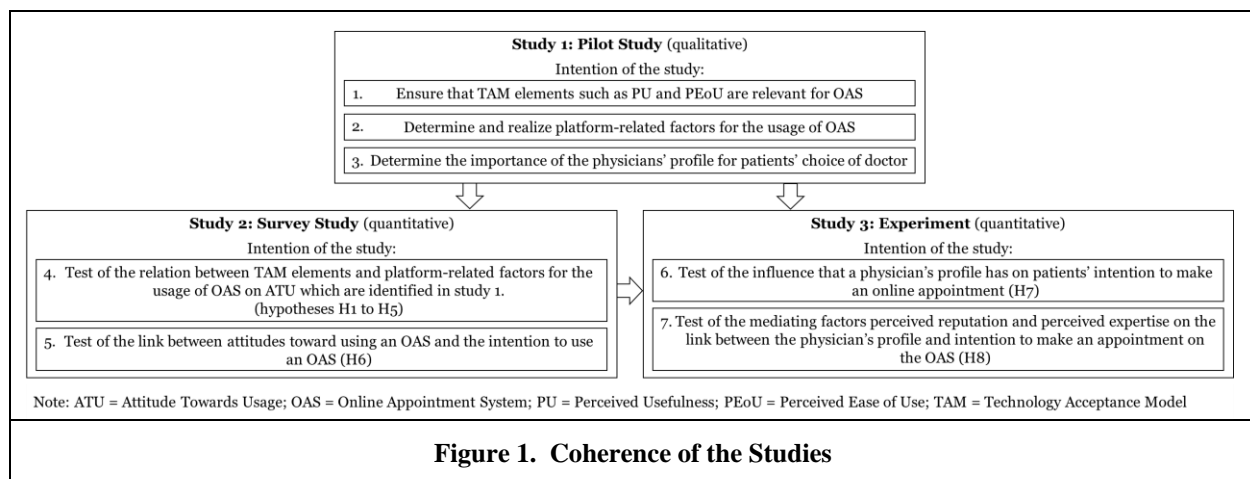


Figure 1. Coherence of the Studies

Study 1 – Qualitative Pilot Study

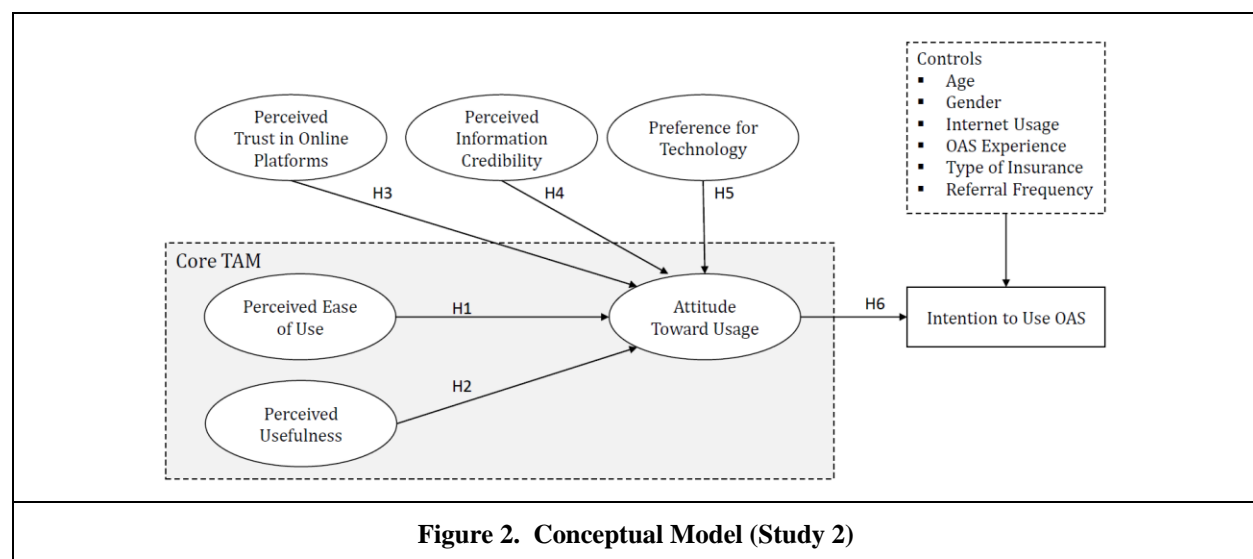
We started this research with a series of 17 interviews with individuals who were familiar with online booking in general and who had had at least one medical treatment within the last 12 months. We found eight men and nine women who reflected different work backgrounds and different demographics. For example, the youngest interviewee was 20 years old, while the oldest was 51 (Mean 26.8; 10 interviewees between 20 and 25, six interviewees between 26 and 30, and one interviewee 51). Most of the interviewees indicated using the Internet at least 2 hours per day (maximum: 8 hours). Except for five respondents, all the interviewees maintained a Facebook profile. Thus, the sample may be considered Internet-affine. Based on an interview-guide that embraced five broad areas concerning e-health in general and platform-based OAS in particular (i.e., information seeking, communication, interaction, data transaction, and data integration), we conducted the interviews face-to-face. The interviews lasted between 15 and 25 minutes and were recorded and transcribed for further analysis. The intention of the analysis was to intentionally 1) determine whether TAM elements, such as PU and PEoU, were mentioned at all, 2) determine and realize platform-related factors in using OAS, and 3) determine the importance of physician information and

consumer ratings provided on a platform in the context of choosing a doctor. Ultimately, technical and data security aspects were important in conjunction with the actual treatment and related data storage but not with the booking process as such, which caused us to not consider IT risk issues in our study. We started the analysis by conducting an open coding, including invivo coding, descriptive coding and attribute coding, to identify meaningful parts, followed by a pattern coding to cluster and aggregate the results. We used three independent coders and found a good inter-coder reliability (Krippendorf's alpha = .92) which indicates the consistency of the codes and thus the reliability of the codes.

Respondents highlighted that OAS may be useful; however, approximately 50% of the interviewees indicated fearing coordination mistakes when OAS data and telephone calling data are incorrectly merged. Additionally, the respondents mentioned important TAM elements such as PU and PEOU. Furthermore, we identified three platform-related factors that might affect patients' attitude toward using an OAS. These factors involve perceived trust toward online platforms in general, platform information credibility, and preference for technology. Perceived trust in online platforms (PTO) refers to the general tendency of individuals' to trust online offerings (Bart et al. 2005; Shankar et al. 2002); comparable to trust in telemedicine services (Van Velsen et al. 2017). More specifically, platform information credibility (PIC) refers to the believability of information and its source (Hovland et al. 1953). Here, a specific platform is meant in contrast to overall impressions for PTO. Finally, preference for technology (PFT) captures situations in which consumers (patients in our case) prefer a technology-mediated interaction to a personnel-in-contact interaction via telephone – although both options are stable alternatives (Simon and Usunier 2007). Thus, based on our qualitative pre-study, we aim to extend factors known from TAM with platform-specific factors (i.e., PTO, PIC, and PFT) to explain why individuals use platform-based OAS and ultimately make appointments online. Finally, nearly 85% of the respondents stated that information on online rating platforms for physicians would affect their choice of doctor, lending support for increased competition, which we address in Study 3.

Hypotheses Development

First, we aim to replicate prior findings concerning TAM and adoption of health and web-services in that PU and PEOU form individuals' attitudes toward usage (ATU) (e.g., Castañeda et al. 2007; Dünnebeil et al. 2012). We note that research exists that posits that PU and PEOU have direct effects on intention to use, without incorporating ATU (e.g., Lee et al. 2012). In contrast, we side with research that considers ATU as an important step in the overall adoption process (e.g., Legris et al. 2003), which enables us to consider additional factors that influence ATU (beside PU and PEOU).



Davis (1989) notes that people tend to eventually use a system when they expect benefits for their daily job, that is, when they believe that the system is useful. He adds that while individuals may believe that a system may help improve their job performance, the actual amount of resources necessary to make use of the

system (e.g., training, coping with system and learning failures) determine whether individuals adopt a system. We submit that this reasoning holds for the use of platform-based OAS. Patients will form an ATU if they perceive the system as useful and if the effort required to use the system does not exceed the benefits. Thus, in line with Davis, we expect PU and PEOU to be drivers of ATU when usage is defined as using the system for searching for physician-related information and making an appointment.

H1: Perceived ease of use of an online appointment system is positively associated with individuals' attitudes toward using an OAS.

H2: Perceived usefulness of an online appointment system is positively associated with individuals' attitudes toward using an OAS.

As argued above, we expect additional platform- and online-specific factors to influence ATU. Drawing on our qualitative findings from Study 1, we are particularly interested to investigate whether PTO, PIC and PFT influence ATU. Thus, this approach resonates with research that suggests that multiple factors might affect attitudes (Al-Rafee and Cronan 2006; Filieri and McLeay 2014). We further build upon research that espouses an unreflective conceptualization of trust in information systems research (e.g., Söllner et al. 2015). Specifically, Mayer et al. (1995, p. 712) define trust as “the willingness of a party [trustor] to be vulnerable to the actions of another party [trustee] based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party.” However, recent research has mostly applied a trust relation between a user and the system (Söllner et al. 2015). Conveying this shortcoming to an online context, we distinguish perceived trust toward online platforms in general (PTO), that is, trust with regard to the concept of online rating platforms, from perceived credibility of provided information (PIC), which is typically user-generated in the case of an OAS. Credibility itself is a multifaceted concept that is usually conceptualized as involving two dimensions: expertise and trustworthiness (O’Keefe 2002). In an online rating context, ratings usually stem from users and are not provided by the platform operator (Gottschalk and Mafael 2017). Thus, although PIC might involve aspects of trust, it differs from trust toward the platform (Eastin 2001). Furthermore, PIC is important because customers cannot easily determine whether a platform operator truly performs editorial review (Metzger 2007), which implies that customers judge the provided information as such.

In particular, we argue that both PTO and PIC affect the attitude toward using an OAS. Chow and Chan (2008) showed that trust is a driver of attitude toward knowledge sharing. Similarly, trust has been identified to be an important external factor in the TAM (Gefen et al. 2003). For PIC, studies have shown that user-generated content, such as in the case of OAS, is believed to be more credible than product information from suppliers (Park et al. 2007). In a similar vein, Ayeh et al. (2013) showed for TripAdvisor that online credibility positively affects attitude toward using user-generated travel information for one’s own purposes. Taking the above together, we posit:

H3: Perceived trust in online platforms in general is positively associated with individuals' attitudes toward using an OAS.

H4: Perceived online information credibility is positively associated with individuals' attitude toward using an OAS.

Our qualitative pre-study also revealed that respondents’ general tendency to prefer technology over social interactions might affect how they form an ATU. Following Meuter et al. (2000) and Simon and Usunier (2007), avoiding service personnel might be a source of consumer satisfaction, which also positively influences attitudes toward online services. Simon and Usunier’s (2007) reasoning is based on the premise that self-service (or online service) exists as an alternative to interaction with a service employee. When this is the case – as with OAS, where telephoning a physician is an available alternative – PFT matters in terms of choosing how an appointment will be made. In line with literature on self-service technologies, we posit that PFT positively affects attitude toward using the technology.

H5: Preference for technology is positively associated with individuals' attitudes toward using an OAS.

Finally, in accordance with the TAM, which showed that ATU influences behavioral intention toward usage in a plethora of cases and contexts (e.g., self-service, travel, medical devices, online banking), we predict:

H6: Attitudes toward using an OAS are positively related to intention to use an OAS.

Figure 2 captures the underlying conceptual model for Study 2. The model combines core elements of the TAM with platform-specific factors inspired by Study 1. A number of controls were utilized, which we discuss in detail when we provide the results.

We further propose that in online settings, when an intermediary is present, additional adoption-related factors may complement factors known from TAM. In particular, because modern platform-based OAS are equipped with physician profiles that show their area of expertise and various online ratings (as well as comments), how a physician is represented in such a system may influence intentional behavior towards a particular physician (Chen et al. 2011). As outlined previously, it is important that patients not only search for information via an online portal but that they also actually switch their appointment-making behavior from telephoning to using the platform-based OAS. In terms of profile quality, signaling theory might help explain why patients actually make an online appointment. Signaling theory states that in cases of information asymmetry, someone who offers a service (i.e., the physician) gives signals, such as references to the market, to reduce information asymmetry and increase buyers' trust (Spence 1974). Signaling theory has been applied in multiple settings, for example, to investigate how university degrees signal competence to future employers (Connelly et al. 2011). We build on recent research that highlights that a profile on social media also may signal competence toward an unknown group of information receivers (i.e., those who visit the profile; Ivens and Schaarschmidt 2015) and argue that the quality of a physician's profile is a major element in the patient's process of finally making an appointment online. This notion implies that the higher the level of competence and reputation signaled to potential patients is (manifested in online ratings and comments), the more likely that platform visitors will make an appointment. Thus, we hypothesize:

H7. A physician's profile on a platform-based online appointment system - in terms of the associated online reputation - positively affects patients' intention to make appointments online.

We further distinguish between physicians' objective reputations (acquired through online ratings and social proof) and subjective, that is, perceived physician reputation. Drawing on signaling theory again, we suggest that a physician's objective reputation (i.e., a highly rated profile) might be a signal that affects patients' evaluation of the physician's reputation and expertise (Ivens and Schaarschmidt 2017). In other words, we predict reputation in a profile to be a proxy for reputation perceptions and a driver of actual booking (as an extension to OAS usage). We therefore argue that the link from objective reputation (as a cause for reputation perception) to the behavioral intention to make an appointment online is indirect through patients' perceptions of physicians' reputation and expertise. We posit:

H8. The link between a physician's profile on a platform-based online appointment system - in terms of the associated online reputation - and patients' intention to make an appointment online is mediated by perceived reputation and perceived expertise.

Method and Results

Study 2 – Survey

Sample

In Study 2, we aim to address hypotheses 1-6 with a survey among Internet users in relation to Jameda, a German online platform for rating physicians that was recently equipped with the functionality to self-book into doctors' calendars (www.jameda.de). Jameda is the largest health-related rating portal in Germany and provides information about 250,000 physicians. On average, 5.65 million users visit the portal per month (as of June 2015), and these users have provided their feedback on treatment in 2.5 million cases. Thus, Jameda is an OAS but simultaneously constitutes an important mechanism to influence physicians' online reputations (Dellarocas 2000; 2010).

Trained student assistants spread a link to our survey concerning Jameda usage among their personal online social networks. They were explicitly asked to contact elderly people in their networks directly in addition to their peers of the same age, to avoid age biases. We offered no compensation for participation in the survey. We focused on an online population because this group is most likely to use a platform-based OAS and marketing efforts of health service providers would most likely target online users first. Because not every respondent was currently a patient in the sense of having urgent health issues, we began the

survey with a scenario stating that the respondents should imagine that they had been injured while bowling in a town to which they had recently moved and that they were now searching for a medical specialist on Jameda.

Overall, 561 people used the link to the online survey, while 317 finished it completely. We had to exclude a couple of responses for various reasons. Twenty-four respondents were not able to recall the scenario from the beginning correctly. For example, some respondents incorrectly indicated that they had headaches instead of an injured finger as the scenario described. Another four responses had to be dropped due to unengaged answering behavior (e.g., all items were answered with a 4 or 7). Finally, we deleted eleven responses with a duration of less than three minutes, which was the absolute minimum to answer all questions according to a pretest. Thus, the final sample consisted of 278 responses.

Of the 278 respondents, 144 (51.8%) were female, and the average age of the participants was 35.6 years ($SD = 12.83$). In terms of education, two (0.7%) respondents did not have any degree, eleven (4.0%) had successfully finished secondary modern school, 62 (22.3%) indicated that junior high was their highest educational degree, 110 (39.6%) held a university-entrance diploma, 91 (32.7%) held a Bachelor's or Master's degree and two (0.7%) held a PhD. The majority of the respondents (32.0%) were employees, 31.7% were students, and 16.5% were self-employed, while the remainder was unequally split among civil servants, retirees, homemakers, pupils and job seekers. We also asked for the average time spent per day on Internet usage. We used a 7-point scale with intervals ranging from 0 hours per day to more than 10 hours per day. The majority (29.9%) used the Internet between 2 and 4 hours per day. Because in Germany in particular, people's type of health insurance may affect how they use OAS (i.e., people with private insurance are allowed to choose a specialist more freely than those with compulsory insurance), we asked whether respondents had private insurance ($N = 43$) or compulsory health insurance ($N = 235$).

Except for intention to use an OAS, which was measured on an 11-point scale ranging from 0 = "no chance, almost no chance (1%)" to 10 = "certain, practically certain (99%)", we measured all the variables on 7-point Likert scales anchored at 1 = "fully disagree" and 7 = "fully agree". The decision to measure intention to use on a Juster scale with eleven points (see Juster 1966) is backed by the rationale that this scale shows higher correlations with actual behavior than other scales (Franke et al. 2013). ATU was measured with three items adapted from Taylor and Todd (1995). PU and PEOU were measured with three items, each inspired by Davis (1989). We also measured each of the non-TAM factors influencing ATU (i.e., PTO, PIC, and PFT) with three items each (Appendix). As the controls, the survey asked for the participants' age in years and operationalized gender as 1 = "male" and 2 = "female". Internet usage was captured as an interval ranging from 1 = "0 hours per day" to 2 = "1-2 hours per day" to 6 = "more than ten hours per day." OAS usage reflects whether the respondents had ever used an OAS to make an appointment (0 = "no"; 1 = "yes"). Insurance type was coded as zero when respondents had compulsory health insurance and "1" otherwise. Finally, referral frequency mirrors the number of physician referrals that a respondent had received during the last 24 months.

Results

We started the analysis with a confirmatory factor analysis (CFA) in IBM AMOS 23 to ensure the correctness of our measures. We included all the multi-item scales and intention to use an OAS in the CFA. The resulting model fit the data very well as indicated by various fit indices ($\chi^2 = 206.354$, $df = 120$, $\chi^2/df = 1.720$, the goodness-of-fit-index [GFI] = .93, the Tucker-Lewis-index [TLI] = .97, the comparative-fit-index [CFI] = .98, and the root mean square error of approximation [RMSEA] = .051). In particular, all the values exhibited or fell below recommended thresholds (Sharma et al. 2005). On the construct level, all the items loaded on their respective construct as indicated by values for composite reliability that ranged from .78 to .94. Similarly, all the values for average variance extracted (AVE) exceeded the cutoff-value of .50. Additionally, discriminant validity was ensured because all the squared roots of AVE for each construct were greater than the correlations with any other construct (Fornell and Larcker 1981). As our dependent and independent variables were all assessed by using the same procedure (i.e., asking respondents on a Likert-scale), the potential of artificially high correlations, known as common method variance (CMV), arises (Fuller et al. 2016). We used a-priori and ex-post methods to reduce the threat of CMV. First, our dependent variable was measured with a different scale compared to the independent variables (Conway and Lance 2010). Second, we conducted a Harman's single factor test and a common latent factor approach to assess the degree to which CMV is an issue. Harman's single factor test indicated that a single factor for

all model variables would explain less than 40%; a value well below the recommended threshold of 50%. In addition, we compared models with and without an unmeasured common latent factor. The differences in regression weights were below .20. Taken together, CMV should not threaten the validity of our results. Table 1 shows the correlations and square roots of AVE for all the constructs.

	1	2	3	4	5	6
1 Attitude Toward Usage	.91					
2 Perceived Ease of Use	.41	.91				
3 Perceived Usefulness	.75	.43	.86			
4 Perceived Trust	.67	.36	.61	.81		
5 Platform Inf. Credibility	.42	.12	.37	.54	.84	
6 Preference for Technology	.37	.41	.32	.30	.10	.74
7 Intention to Use OAS	.80	.39	.70	.61	.37	.37

Note: Bold values in diagonal pertain to the square root of AVE.

Next, we calculated the conceptual model depicted in Figure 2 with AMOS 23 and a maximum-likelihood estimator to test H1-H6. The structural model revealed a slightly deteriorated but still acceptable fit as indicated by $\chi^2 = 679.453$, $df = 270$, $\chi^2/df = 2.516$, $GFI = .84$, $TLI = .89$, $CFI = .90$, and $RMSEA = .074$. All the controls were modeled such that they potentially affect intention to use an OAS. None of the controls yielded a significant relationship with intention ($\beta_{Age} = .07$; $\beta_{Gender} = .04$; $\beta_{Internet\ Usage} = -.01$; $\beta_{Type\ of\ Insurance} = .02$; $\beta_{OAS\ Experience} = -.03$; $\beta_{Referral\ Frequency} = .01$). Of the hypothesized paths, PEoU had a significant effect on ATU ($\beta = .11$, $p < .05$) in support of H1. H2 was also supported because PU had a significant effect on ATU ($\beta = .60$, $p < .001$). Together, these results show that the core tenet of TAM holds for platform-based OAS usage.

We also assessed whether the platform-specific factors affect ATU. In support of H3, perceived trust in online platforms had a significant positive effect on ATU ($\beta = .30$, $p < .001$). Additionally, H4 and H5 were supported because the effects of online information credibility and preference for technology were significantly related to ATU on a 95% level ($PIC \rightarrow ATU$: $\beta = .11$, $p < .05$; $PFT \rightarrow ATU$: $\beta = .13$, $p < .05$). Finally, in line with TAM, ATU was significantly associated with intention to use an OAS ($\beta = .76$, $p < .001$). Thus hypotheses H1-H6 concerning TAM have been supported (Table 2).

Hypothesis	Path	β	p	Supported
H1	Perceived Ease of Use \rightarrow Attitude Toward Usage	.11	$p < .05$	Yes
H2	Perceived Usefulness \rightarrow Attitude Toward Usage	.60	$p < .001$	Yes
H3	Perceived Trust in Online Pl. \rightarrow Attitude Toward Usage	.36	$p < .001$	Yes
H4	Perceived Online Credibility \rightarrow Attitude Toward Usage	.11	$p < .05$	Yes
H5	Preference for Technology \rightarrow Attitude Toward Usage	.13	$p < .05$	Yes
H6	Attitude Toward Usage \rightarrow Intention to Use OAS	.76	$p < .001$	Yes

Study 3 – Experiment

Study Design

In Study 3, we aimed to investigate the influence that a physician's profile has on patients' intention to make an online appointment, as discussed in the hypotheses development section. We aimed to depart from the reasoning associated with the TAM and to arrive at a discussion on OAS usage that was based on reputation and signaling theory. First, we analyzed 30 randomly picked available profiles on Jameda. We found that the number-based rating that a physician received correlated with the tenor of the comments that were posted (We checked that correlation by having three student assistants rate comments on a scale from 1 = 'very favorable' to 5 = 'not favorable at all'). We then decided to manipulate both the average rating that a physician received and the comments. In particular, we created three profiles that were similar in terms of the physicians' profile pictures, names, and areas of expertise. Additionally, we kept social proof constant,

meaning that the number of people who contributed to a profile rating through their individual ratings was equal for all three profiles (Koch and Benlian 2015).

In the final experimental study, good-reputation, medium-reputation, and poor-reputation profiles differed in the tenor of the associated comments and the average user rating. Based on our randomly picked profiles and the correlation analysis, we used a mark of 1.2 for the good-reputation profile, a 2.7 for the medium-reputation profile, and a 5.2 for the poor-reputation profile. All the values are realistic because real profiles with such values exist. Furthermore, the profiles were equipped with comments. For each profile, we selected comments that were posted in relation to real doctors concerning their behaviors in treatment situations. From these real-life profiles, we selected ten positive comments for the good-reputation profile, ten neutral comments for the medium-reputation profile, and ten negative comments for the poor-reputation profile. Five research assistants had to choose three comments of ten that they perceived as most appropriate for the respective profile. Finally, we took the three most-often-selected comments for each group and included them in our good-, medium-, and poor-reputation profiles.

Additionally, we used an eye-tracking service to exclude the possibility that the respondents looked differently at good-reputation versus poor-reputation profiles. Specifically, participants in the eye-tracking study were invited to be physically present in a laboratory, which was equipped with specific eye-tracking devices (Walber et al. 2013). Then, the participants positioned themselves in front of a monitor and looked at certain pictures representing our manipulated Jameda profiles, while their eye movement was tracked via a specific eye-tracking device. In our case, 12 participants (50% female) were invited to look at a poor and a good profile. Figure 3 provides a heat map for all 12 participants for a good (left) and a poor (right) profile. As one can see, the eye-tracking heatmaps are comparable, indicating that the participants recognized a good-reputation and a poor-reputation profile in a similar manner. The only difference between the two profiles lay in the awards shown in the good profile, which were not included in the poor profile. Because the participants recognized the manipulated areas (i.e., overall rating, comments) for both profiles, the results of our main study should not be affected by how respondents look at profiles.

Finally, the participants in the main study were randomly selected to answer in relation to a good-reputation, medium-reputation, or poor-reputation profile (i.e., between-subject, scenario-based experimental study design). At the end of the survey, we determined that the profile shown was of an artificial nature and that no such profile (and no such physician) exists in reality.



Figure 3. Eye-tracking Heatmaps

Sample

To recruit participants for our main study, we again made use of students trained to spread the link to an online survey in their own social networks. Overall, 234 people started the survey, while only 153 finished the entire survey. Of the respondents, we had to exclude 11 because they failed to answer our attention check question correctly. Another 12 respondents had to be dropped because they were unable to recall the rating given to the physician correctly. Thus, the final data set consisted of 130 responses, which is considered appropriate for an experimental study design with three groups (Lenth 2001).

Of the 130 respondents, 74 (56.9%) were female. The average age of the participants was 26.5 years (SD = 8.62) and thus slightly lower than in Study 2. In terms of education, no respondents indicated having no degree, three (2.3%) had successfully finished secondary modern school, 20 (15.4%) indicated that junior high was their highest educational degree, 65 (50.0%) held a university-entrance diploma, 40 (30.8%) held a Bachelor's or Master's degree and two (1.5%) held a PhD. Thus, the sample may be considered similar to the Study 2 sample in terms of education. In Study 3, the majority of the respondents (60.0%) were students, while employees formed the second-largest group (20.0%). The remainder was unequally split among civil servants, retirees, homemakers, self-employed, and pupils. We again asked for the average time spent per day on Internet usage. We used the same 7-point scale ranging from 0 hours per day to more than 10 hours per day as was used in Study 2. The majority (31.5%) used the Internet between 2 and 4 hours per day, followed by the second-largest group, which used the Internet between 1 and 2 hours a day. One hundred ten of the 130 respondents had compulsory health insurance, while the remaining 20 respondents had private insurance.

Manipulation Check

To assess whether our manipulation of Jameda profiles was successful, we conducted an ANOVA on two questions that respondents had to answer in relation to the profile and the physician shown. In our experimental design, we aimed at recruiting the same number of respondents for each profile type (poor, medium, good). However, due to unequally distributed drop-outs, 41 people were routed to the poor-reputation scenario, 50 to the medium-reputation scenario, and 39 to the good-reputation scenario. As detailed above, we included a check of whether the respondents were able to recall the rating given to the physician shown in the scenario, which resulted in a loss of 12 answers (see Sample). However, it was still necessary to check whether the manipulation as such was successful (Steinmann et al. 2014). We used the participants' evaluation of online ratings that a physician received and perceived sympathy as manipulation checks. While the evaluation of online ratings should significantly differ between a poor-reputation, medium-reputation, and good-reputation profile, evaluations of sympathy should be less strongly affected by manipulated profiles. For assessing evaluation of online ratings, the respondents had to answer the question "Overall, how would you rate the assessment the physician received?" on a scale that ranged from 1 = "very bad" to 5 = "very good". As expected, the results of an ANOVA indicate that the manipulation in terms of the pictorial representation was successful ($M_{\text{good}} = 4.54$ (SD = .60), $M_{\text{medium}} = 3.52$ (SD = .65), $M_{\text{poor}} = 1.56$ (SD = .95), $F_{\text{Reputation}}(2,127) = 167.288$, $p < .001$, $\eta^2 = .725$). An evaluation of the physician's sympathy also revealed significant differences among the groups; however, this difference was smaller in magnitude ($M_{\text{good}} = 3.97$ (SD = .81), $M_{\text{medium}} = 3.90$ (SD = .62), $M_{\text{poor}} = 3.51$ (SD = 1.18), $F_{\text{Sympathy}}(2,127) = 3.236$, $p < .05$, $\eta^2 = .048$). Together, these results indicate that the three experimental conditions varied as intended.

Results

We used the same measures as for Study 2 for those constructs that also appeared in Study 3. For Study 3, we extended TAM and investigated not only the intention to use an OAS but also patients' willingness to actually make an online appointment. We again measured this intention-like construct with an 11-point scale ranging from 0 = "no chance, almost no chance (1%)" to 10 = "certain, practically certain (99%)". Additionally, non-TAM factors that affected ATU in Study 2 were utilized as controls (i.e., PIC and PFT). We note that we did not include PTO because it correlated highly with ATU in Study 2. Additionally, we measured physicians' perceived experience (PEXP) and physicians' reputation (PREP) with three items adapted from Koufaris and Hampton-Sosa (2004) and five items from Ohanian (1990). Intention to make an online appointment (ITOA), PEXP, and PREP were all assessed after the respondents looked at the

manipulated profile. All the other items were measured prior to the manipulation. For full item lists and factor loadings, please refer to the Appendix.²

We again started with a CFA in AMOS 23 using a maximum-likelihood estimator. A model with 18 items representing ATU, PFT, OC, PEXP, and PREP revealed good fit ($\chi^2 = 205.616$, $df = 125$, $\chi^2/df = 1.645$, $GFI = .86$, $TLI = .94$, $CFI = .95$, $RMSEA = .071$). Again, all the criteria for reliability and discriminant validity were met (Appendix). To assess the influence of a physician's profile on intention to use OAS, and therefore H7-8, we relied on the SPSS macro PROCESS. PROCESS is capable of calculating regression including bootstrap intervals, which makes it especially suitable to studying indirect and mediation effects (Preacher and Hayes 2004).

We used the profile type (good versus medium versus poor) as our independent variable. While this is not fully correct in terms of statistical rigor, it is appropriate to illustrate the effects of the profile type. In particular, regressions that are based on ordinary least squares (on which PROCESS runs) require variables that are either dichotomous or continuous with equidistant scale intervals (Winship and Mare 1984). Our experimental variable would fulfill this criterion if the medium-reputation mean score were the exact mean between the poor and good profile means. As the results show, the medium profile was not the exact mean in terms of reputation. However, because the variable was at least ordinal and the mean values differed significantly; the direction and significance of the results should not be affected by how we conceptualized objective physician reputation.

Table 3. Regression Results (Study 3)				
	Model 1: Intention to Make Appointment	Model 2: Physician Reputation	Model 3: Physician Expertise	Model 4: Intention to Make Appointment
<i>Independent Variable</i>				
Profile (manipulated: good=3 vs. medium=2 vs. poor=1)	1.45 (.35)***	1.90 (.13)***	1.32 (.12)***	.73 (.55)
<i>Mediating Variables (T2)</i>				
Reputation				.71 (.28)*
Expertise				.64 (.29)*
<i>Controls (T1)</i>				
Age	-.00 (.03)	.03 (.01)*	.02 (.01)	-.04 (.03)
Gender	.26 (.54)	.14 (.19)	.12 (.18)	.08 (.50)
Internet Usage	.27 (.26)	.04 (.09)	-.04 (.09)	.27 (.24)
Type of Insurance	.10 (.71)	-.25 (.25)	-.13 (.25)	.36 (.65)
Referral Frequency	-.03 (.30)	-.01 (.11)	.01 (.10)	-.03 (.28)
Attitude Toward Usage	.48 (.20)*	-.04 (.07)	-.02 (.07)	.52 (.19)**
Platform Inf. Credibility	.15 (.23)	.07 (.08)	.09 (.08)	.05 (.21)
Preference for Technology	.09 (.19)	-.07 (.07)	-.03 (.07)	.16 (.18)
R ²	.24	.67	.51	.37
N	130	130	130	130

Note: *** = $p < .001$; ** = $p < .01$; * = $p < .05$; T1=measured prior to Stimulus; T2=measured after stimulus.

We first regressed ITOA, our dependent variable, on the basic controls (age, gender, Internet usage, type of insurance, referral frequency); the controls related to Study 2 (ATU, PIC, and PFT) and the independent variable, the manipulated profile, which was coded as '1' for poor-reputation profile, '2' for medium-reputation profile, and '3' for good-reputation profile (Table 3). The resulting model revealed an explained variance of approximately 24%. None of the control variables had a significant influence on ITOA except for ATU, which is consistent with the results of Study 2. Furthermore, the profile type had a significant effect on intention to make an appointment in support of H7 ($b = 1.45$, $SD = .35$, $p < .001$). In Model 2, we

² We note that credibility is often defined as consisting of expertise and trustworthiness (Metzger 2007). Here, we measured credibility before and expertise after the manipulation, which prompted us to treat them as separate.

checked whether the profile had an effect on physician reputation, the mediating variable. Notably, age had a significant effect, indicating the older patients generally perceive physician reputation as higher. Again, the manipulated profile had a significant effect ($b = 1.90$, $SD = .13$, $p < .001$) in supporting the first prerequisite for mediation (Baron and Kenny, 1986). Similar effects could be established for the influence of the profile on physician expertise ($b = 1.32$, $SD = .12$, $p < .001$). Finally, in Model 4 we regressed all the variables on the dependent variable, ITOA. Except for ATU, which positively affected ITOA, none of the controls had an effect on the dependent variable. Both physician reputation and expertise had significant effects on ITOA ($b_{\text{Reputation}} = .71$, $SD = .28$, $p < .05$; $b_{\text{Expertise}} = .64$, $SD = .29$, $p < .05$). In support of a mediation effect, the effect of the profile was no longer present. This result is further quantified by indirect effects that were significant because the bootstrap interval did not comprise zero (Indirect effect of Profile on ITOA through reputation: $b = 1.34$, $SD = .52$, $LLCI = .30$, $ULCI = 2.32$; Indirect effect of Profile on ITOA through expertise: $b = .84$, $SD = .40$, $LLCI = .06$, $ULCI = 1.75$).

Discussion

This research began by highlighting the role of digitization in booking and appointment services as forms of interactive online services (Bolton and Saxena-Iyer 2009; Schaarschmidt and Hoerber 2017). Digitization has permeated many sectors that were until now quite conservative. In a similar vein, online appointment and rating platforms in the health care sector have the potential to turn established appointment procedures upside-down. This research is a first step toward a better understanding of the factors that drive consumers (i.e., patients) to adopt online appointment services for physicians and therefore a first step to gain a general understanding of digitization in less digitized areas, such as appointment making. Additionally, we find support for the suggestion by Guo et al. (2017) who indicate that OAS might strengthen the doctor–patient relationship, which in turn result in reputation gains.

While some of our results are in line with previous literature, some findings need a more fine-grained discussion. Across all our three studies we found that factors known to be associated with TAM are present in the context as well. For Study 1, we were able to identify three platform-related factors that might affect patients' attitude toward using an OAS, such as perceived trust toward online platforms in general, platform information credibility, and preference for technology. Additionally, we found that patients include information on rating platforms for physicians while choose their doctor. We used the results of Study 1 to design Study 2 where we found that the core elements of TAM (PU and PEOU) and the platform-related factors for the usage of OAS (PTO, PIC, and PFT) are positively associated with ATU. Additionally, we were able to establish the hypothesized positive relation between ATU and the intention to use an OAS which indicates to make an appointment online. The OAS provide more information than a calendar tool to make an appointment. It provides a profile with information about the physician and evaluations from patients of the physician which affect the users' perception of physicians' reputation and expertise. The experimental Study found support for the hypothesized effect that the profile of a physician on an OAS influences the intention to use the OAS to make an appointment of an OAS user. Additionally, we found support for mediating effect of perceived reputation and perceived expertise on the link between the physician's profile and intention to make an appointment on the OAS.

Probably the most notable finding stems from Study 3 and relates to the fact that characteristics associated with the physician as such (e.g. profile reputation) have an effect on usage intention although we accounted for attitude towards usage, the strongest driver of behavioral intention from Study 2. This implies that patients with high levels of attitudes towards OAS usage are influenced by the physician's online appearance, too. We discuss implications of our findings for information systems theory and practice in the following.

Implications for Information Systems Theory

Apart from applying a concept such as TAM to a new phenomenon of interactive online services (Berry et al. 2010), this research contributes to theory in adoption of innovative health care services and online reputation in the following way.

First, this research combines literature concerning TAM, health care service adoption, and online reputation. As such, this research depicts a crossroads because for many years TAM research and online reputation have been treated separately. TAM has been useful in helping to understand and explain use

behavior in an information systems implementation context (Legris et al. 2003). Although TAM has evolved over time and has been extended many times to new contexts (Rho et al. 2014), TAM is still not fully efficient in explaining or predicting the adoption of platform-based online services. Second, in our study concerning platform-based OAS usage in a health sector, we find that factors inspired by TAM, such as PEOU and PU, are still important concepts to predict e-service adoption. However, in the context of platform-based OAS, new, platform- and intermediary-specific factors also explain a large proportion of variance in patients' tendency to make use of an OAS. Specifically, this research showed that platform-specific characteristics that are not related to any technical specification (i.e., PTO, PIC, and PFT), are important to draw a full picture of adoption because they all affect ATU. Third, the experimental study showed that in contrast to software systems run and maintained by the physician, platform-based OAS involve an additional important factor – the physician's profile. We note that ATU is still an important driver, as evidenced by a significant influence on usage in Study 3 (Models 1 and 4), but not the sole one when profile evaluations enter the situation. Platforms that include profiles involve the opportunity to compare multiple offerings online. As in other sectors, such comparison possibilities are prone to decrease customer loyalty, which may also pose a threat to established businesses. Thus, this study underscores the importance of an online reputation as a complement to the offline reputation that physicians usually have.

Implications for Health Care Management

Taken together, this study's results might help support managerial actions in the area of online appointments. As noted in the introduction, physicians want patients to switch their behavior from making telephone appointments to using an OAS (Simon and Usunier 2007). This study showed that main drivers, such as PEOU and PU, also determine patients' use of an OAS. Thus, physicians should select the platform that they work with carefully with respect to the platform's usability and overall appearance. This study also showed that a physician's profile is a major driver of patients' ultimately making appointments online. Thus, receptionists could be required to remind patients to rate the respective physician after a treatment, thus contributing to signaling expertise and competence. This is a strategy that car manufacturers use in their after-service areas. Additionally, physicians are well advised not to maintain multiple profiles on different platforms. While this insight was not at the core of our study, we note that maintaining a good online reputation is costly. Thus, maintaining it for a limited number of platforms is feasible because, for example, receptionists need not remind patients to rate their treatment on multiple platforms.

We also note that online appointment making may play different roles for different types of ambulant health care. For example, physicians with high investments in infrastructure (e.g. lasered eyes), may use appointment systems to fill unused spots in their calendar, for example, with discounted offerings. For highly-frequented specialists, in turn, a challenge might arise from being unable to keeping their schedule, which might have negative impacts on patients' trust in the online system.

Moreover, our study showed that specific factors, such as a physician's profile, are important when discussing factors that influence adoption. That is, while in classic thinking, a physician would only be interested in whether a patient would use the technology of online appointments embedded in a stand-alone system, in the context of platform-based OAS, alternatives are available. These alternatives have multiple dimensions: First, OAS as such are alternatives to telephone appointments; second, multiple platforms for making appointments are available; and third, patients may switch to a competing physician. None of these factors is captured in a classic TAM, which is why we call for more studies that combine multiple views concerning TAM and platform-specific factors, such as reputation.

Limitations

Like other research, this study is not free of limitations. First – and this a critique of many studies that have built upon TAM – we only measured behavioral intention (to use an OAS in Study 2 and to make an online appointment in Study 3) and not actual behavior. Although we tried to account for this limitation by using Juster scales, future research would still benefit from a replication study involving actual behavior. Second, while our sample is not a student sample, it is still a convenient sample that may reflect an online population well but that has its downsides in terms of representativeness in relation to an entire population. Third, the different profiles (good reputation, medium reputation and poor reputation) used in Study 3 are not equidistant, because we created comments for each profile based on the pilot study (Study 1). To mitigate this effect we performed a sentiment analysis as recommended by Hovy (2015) and Poria et al. (2017).

Therefore, we used the software package AlchemyAPI, which is part of IBM cloud platform Bluemix. This analysis revealed that the comments of our good reputation profile lead to positive sentiments (sentiment-index³ = .86), the medium profile seems to cause neutral sentiments (sentiment-index = 0,07) and the poor reputation profile lead to negative sentiments (sentiment-index = -.82). This indicates, that the profiles' comments lead to the intended effect. Finally, this study rests on TAM, which is why we only investigated effects on intention to use an OAS and intention to make appointments online. However, future research could integrate other variables of interest, such as patients' word-of mouth or their willingness to pay a price premium in case they obtain a better appointment.

³ The sentiment-index ranges from 1.0 "positive sentiment" to -1.0 "negative sentiment".

Appendix. Items, Standardized Regression Weights and Reliability

Item	Study 2 (n = 278)		Study 3 (n = 130)	
	CR	AVE	CR	AVE
	SRW		SRW	
ATU: Attitude Toward Usage (adapted from Taylor and Todd 1995)	.94	.83	.96	.87
Using an OAS is a good idea.	.90		.92	
I like the possibility of making physician appointments online.	.95		.93	
Using an OAS would be pleasant.	.88		.96	
PEoU: Perceived Ease of Use (adapted from Davis 1989)	.93	.82	n.a.	n.a.
Learning to use an OAS would be easy for me.	.92		n.a.	
I would find it easy to get an OAS to do what I want to do.	.93		n.a.	
I would find an OAS easy to use.	.88		n.a.	
PU: Perceived Usefulness (adapted from Davis 1989)	.89	.74	n.a.	n.a.
Using an OAS would increase my productivity in making appointments.	.77		n.a.	
Using an OAS would enable me to accomplish booking tasks more quickly.	.92		n.a.	
I would find an OAS useful for making physician appointments.	.88		n.a.	
PTO: Perceived Trust in Online Platforms (adapted from Roca et al. 2009)	.85	.66	n.a.	n.a.
Online reservation platforms are trustworthy.	.84		n.a.	
I do not doubt the honesty of online reservation platforms.	.75		n.a.	
Online reservation platforms are competent and effective.	.85		n.a.	
PFT: Preference for Technology (adapted from Simon and Usunier 2007)	.78	.54	.73	.49
When booking a long-distance train ticket, I prefer going to the ticket window over online booking. (R)	.83		.95	
When booking a local rail ticket, I prefer going to the ticket window over online booking. (R)	.75		.56	
When I intend to make a hotel reservation, I prefer going to the desk over online booking. (R)	.62		.52	
PIC: Platform Information Credibility (adapted from Newell and Goldsmith 2001)	.88	.71	.82	.61
I trust physician-related information that is provided by the OAS.	.94		.82	
The OAS publishes trustworthy information (e.g., patient ratings, recommendations) concerning physicians.	.72		.59	
I believe in ratings and recommendations of this OAS.	.86		.90	
PREP: Physician Reputation (adapted from Koufaris and Hampton-Sosa 2004)	n.a.	n.a.	.89	.73
The physician seems to have a good reputation.	n.a.		.90	
The physician seems to have a reputation for being honest.	n.a.		.69	
This physician is known to be concerned about patients.	n.a.		.95	
PEXP: Physician Experience (adapted from Ohanian 1990)	n.a.	n.a.	.93	.73
The physician seems to be an expert in his field.	n.a.		.85	
The physician seems to be experienced.	n.a.		.80	
The physician seems to be qualified.	n.a.		.84	
The physician seems to be competent.	n.a.		.89	
The physician seems to be skilled.	n.a.		.89	

Note: CR=Composite Reliability, SRW=Standardized Regression Weights, AVE=Average Variance Extracted, n.a.=not available for respective study.

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PAPER H

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Assessing the effects of multichannel service provider corporate reputation on customer new product adoption and RFM value

Multichannel
service
provider

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Abstract

Purpose – Service providers leverage their corporate reputation management efforts to increase revenues by shaping customer attitudes and behaviours, yet the effects on customer innovation adoption and customer value remain unclear. In an extended conceptualisation of customer-based corporate reputation (CBR), the purpose of this paper is to propose that customer perceived risk, perceived value, and service separation are contingencies of the relationship between CBR and two key customer outcomes: customer new product adoption proneness (CPA) and recency-frequency-monetary (RFM) value.

Design/methodology/approach – Using a predictive survey approach, 1,001 service customers assess the online or offline operations of six multichannel retailers. The hypothesised model is tested using structural equation modelling and multigroup analysis.

Findings – The analysis reveals significant linkages of CBR with perceived risk and perceived value, as well as between perceived risk and perceived value and from perceived value to CPA and RFM value. These linkages vary in strength across unseparated (offline) and separated (online) services.

Research limitations/implications – This study uses cross-sectional data to contribute to literature that relates CBR to relevant customer outcomes by considering CPA and RFM value and investigating contingent factors. It provides conceptual and empirical evidence that price appropriateness represents a new CBR dimension.

Practical implications – The results reveal that CBR reduces customers' perceived risk and positively affects their perceived value, which drives CPA and RFM value. Multichannel retailers can create rewarding customer relationships by building and nurturing good reputations.

Originality/value – This study is the first to link CBR with customer product adoption proneness and value, two important customer measures. It proposes and tests an extended conceptualisation of CBR.

Keywords Mediation, Moderation, Customer lifetime value, Customer product adoption proneness, Customer-based corporate reputation, Multichannel services, RFM value

Paper type Research Paper

Introduction

Companies increasingly realise the benefits of a favourable corporate reputation (Gaines-Ross, 2010; Swoboda *et al.*, 2016), especially among customers. Customer-based corporate reputation (CBR), as applied to service firms, refers to customers' overall evaluation of the firm, according to their reactions to the firm's offerings and communications, as well as their interactions with it (Walsh and Beatty, 2007). Previous research reveals that CBR affects a vast range of outcomes: customer trust (Swoboda *et al.*, 2017), loyalty, satisfaction (Jin *et al.*, 2008; Swoboda *et al.*, 2013, 2017), word of mouth (Park and Lee, 2009), online product returns (Walsh *et al.*, 2016), commitment, and share of wallet (Ali *et al.*, 2015; Walsh, Bartikowski and Beatty, 2014). Scholars also point to the



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