

DOES REPUTABLE EMPLOYEE BEHAVIOUR IN SOCIAL NETWORKS AFFECT CUSTOMERS' TRUST AND WORD OF MOUTH? AN EXPERIMENTAL STUDY

“Complete Research”

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Abstract

Firms must create, maintain and manage their corporate reputation to stay competitive. With the rise of social media and social network applications this management includes upholding the reputation online. Employees especially can harm companies' reputation with thoughtless behaviour in social networks because their behaviour might be attributed to the firm's products and services. This study investigates how employees' behaviour in social networks affects customer outcome variables of corporate reputation such as trust and word of mouth. The study extends prior reputation research that centred on offline contexts and investigates reputation-related online behaviour of employees. The authors use an experimental design and surveyed 199 customers. The results indicate that employees' reputable behaviour in social networks positively affect trust and word of mouth. Additionally, the authors find support for a mediating effect of customer-based corporate reputation. The findings contribute to corporate reputation research by enhancing our understanding of the effect of employee behaviour in social networks.

Keywords: corporate reputation, trust, word of mouth, social network, employee behaviour

1 Introduction

Social networks such as Facebook, Twitter, or LinkedIn have permeated both individuals' private and business life (Kaplan and Haenlein 2010). Also, firms have used such media to communicate with their customers, collect ideas, and share content (Schaarschmidt et al. 2011). Thus, social networks have become an integral part of a firm's marketing strategy. In the long run, these new forms of customer interaction shape customers' perceptions of the firm, manifested in customer-based corporate reputation (CBR), which is commonly defined as an attitude-like evaluative judgement of the firm (Walsh et al. 2009a). However, social networks and social media also pose a threat to CBR if employees misbehave and their behaviour can be attributed to the company. 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.¹ This, and similar examples, show that employees potentially might harm firms' social media strategy intention and thereby firms' corporate reputation. However, apart from apparent examples,

¹ URL: <http://mashable.com/2014/04/14/us-airways-nsfw-pic/>, last access 2014/04/15

anecdotic evidence and reports of social media's potential, it is far from understood if and how employee behaviour in social networks affects customer evaluations of respective firms. Solving this lack of understanding is important for researchers and practitioners. Researchers might use the results to complement models of company's social media success. Practitioners may gain knowledge about hazards and their effects associated with the usage of social networks regarding their company.

Thus far, prior studies have only discussed the future of employee privacy in social media regarding private life and work life and found that employees expect these spheres generally to be segregated (Molok et al. 2010; Sánchez Abril et al. 2012). However, these studies do not relate their results to customer evaluations. Similarly, Henkel, Tomczak, Heitmann and Herrmann (2007) empirically found that brand consistent employee behaviour on mass media campaigns is positively associated with the brand's contribution to companies' success, tested on a sample of 167 senior managers. Again, the role of customer evaluation was not a focus. Chung et al. (2014) theorised and empirically examined how firms' social media efforts influence consumer behaviour and firm performance. Similarly, Goh, Heng and Lin (2013) empirically analysed consumer purchase behaviour based on user-generated content and marketer-generated content on firms Facebook sites. They used content analysis to capture the informative and persuasive nature of user-generated and marketer-generated content. Their findings are three folded: (1) firms engagement in social media leads to an increase in consumer purchases; (2) brand community content affects consumer purchase behaviour through embedded information as well as persuasion; (3) user-generated content has a significantly stronger effect on customers than marketer-generated content. This is supported by Luo et al. (2013) who found that consumers' participation in social media can influence companies' market value. However, although these studies provide valuable implications by highlighting the importance of social media in companies' marketing strategy, they do not shed much light on the effects of employee behaviour in social networks on customers.

Furthermore, Qualman (2012) emphasises that research focusing on employee behaviour is necessary because of the ongoing merger of private and business life through social media. For example, employees need to be cautious about their offline behaviour because inappropriate behaviour can easily be recorded via smartphone cameras and uploaded into social networks. This indicates an increased risk for companies' reputation and might increase negative word of mouth. In sum, while a diverse body of literature exists that is devoted to social media as such as well as to the coalescence of private and business life, research pertaining to customer evaluations of employees' social media behaviour remains scarce. In particular, to the best of our knowledge, prior studies have not yet considered the effects of employee behaviour in social networks on important customer evaluations such as word-of-mouth. In response to this relative lack of understanding, we aim to analyse the effect employee behaviour (and misbehaviour) in social networks has on customer downstream variables. In particular, by drawing upon signalling theory we investigate trust, and positive and negative word of mouth in an experimental setting, because IS and marketing research associate those variables positively with companies' success as they result in increased purchase intention and customer commitment (e.g., Aggarwal et al. 2012; Chung et al. 2014; Clemons et al. 2006; Helm 2011). Additionally, we investigate the mediating role of CBR because the literature has acknowledged the importance of CBR for trust and word of mouth (Keh and Xie 2009; Walsh et al. 2009b; Walsh and Beatty 2007).

The remainder of this article is organised as follows. The authors introduce the theoretical background and develop related hypotheses. After that, the methodology is explained including the experimental design, data collection and sample characteristics. In the following, the authors report their results. Finally, the findings are discussed in relation to implications for theory and praxis.

2 Theoretical background and hypotheses

To inform our hypotheses we draw on signalling theory. Signalling theory outlines that sellers and customers of products and services hold asymmetric information when facing a market interaction (Spence 1974). Usually, the seller holds more detailed information about its products and services than

the customer. For example, car manufactures hold more information concerning the technical components than the customer usually can assess. Imagine a market interaction in which the seller is aware of the quality of its products and services and customer are not completely informed. How should the customer decide whether to buy at seller A or seller B? Because of the lack of information on the customer's side, the customer seeks signals from the market (Boulding and Kirmani 1993). Additionally, customers gather information from other sources such as customer reviews, relatives or employees of the seller (Park et al. 2007). Employees of sellers own more information about the quality of products and services than customers because they receive more internal, mostly informal information. For example, if employees of food producers state that they do not consume their employers' products, a customer might be warned.

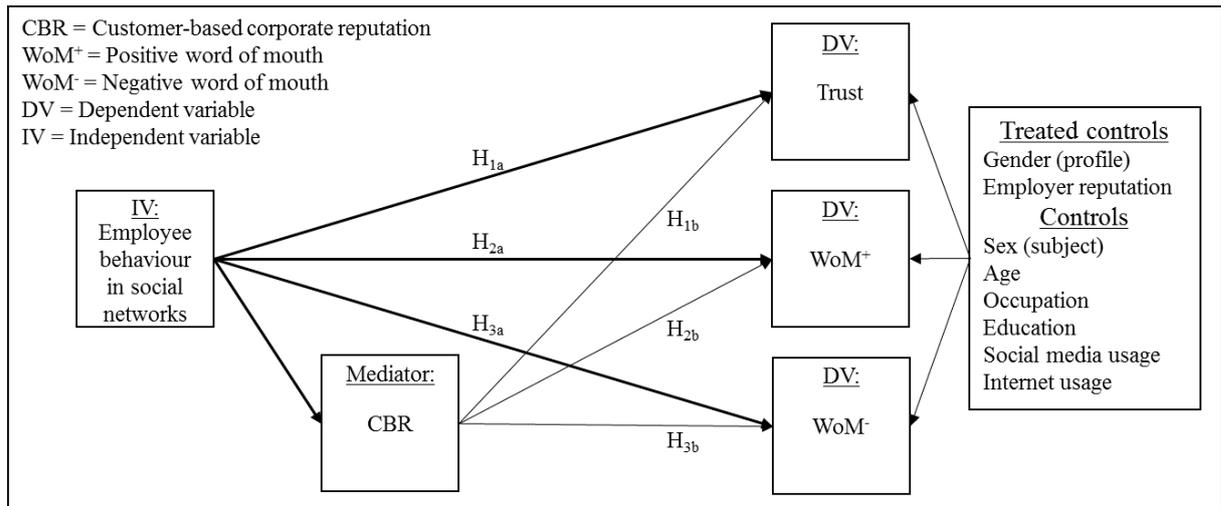


Figure 1. Study design

Employees' behaviour in social networks might include providing information about the employer such as impression of credibility, impression of authenticity, impression of social norms and an impression of moral concepts (Dowling 2001; Fombrun 1996; Zinkhan et al. 2001). Customers compare this information unconsciously with their social norms and moral concepts and mirror these impressions back to the employer (Bettencourt and Brown 1997; Bienstock et al. 2003; Kelley 1992). The delta between (harmful) information about the employer and customers' moral concept affect how the customer evaluates the firm. Thus, employees' behaviour in social networks forms a signal to customers, which, in turn, affects how customers rate the employer as well as its products and services.

In this study, we focus on how employee behaviour in social networks affects customer evaluations of their employer. Recent research has highlighted that trust, positive, and negative word of mouth are influential customer evaluations as they directly affect buying behaviour (East et al. 2008; McKnight et al. 2002; Yoon 2002). Figure 1 depicts this study's research design.

Turning to trust first, research posits that trust is positively associated with online and offline purchase intention, supplier selection, and relationship enhancement (Selnes 1998; Sichtmann 2007; Yoon 2002). In line with Moorman et al. (1993) trust is defined as "existing when one party has confidence in an exchange partner's reliability and integrity" (Morgan and Hunt 1994, p. 23) This definition draws on the classical perspective of trust provided by Rotter (1967, p. 651): "a generalized expectancy held by an individual that the word of another [...] can be relied on." These definitions show the importance of reliability and integrity. Reputable behaviour of employees (e.g., praise the employer in public or expressing job satisfaction in public) supports the reliability and integrity of the employer (Eck 2010). Thus, in line with signalling theory, reputable behaviour of employees indicates a signal of confidence to customers, which they might transfer to the firm level. This leads to hypothesis 1_a.

H_{1a}: Employees' reputable (vs. non-reputable) behaviour in social networks positively affects customers' trust in the employer.

Word of mouth is associated with buying decisions and companies' awareness (Henning-Thurau et al. 2003; Sun et al. 2006). Customers' positive word of mouth might be defined as the extent to which customers advise other customers (e.g., friends, relatives, colleagues) to do business with the focal seller (Verhoef et al. 2002). Following this school of thought, customers' negative word of mouth might be understood as dissuading or warning other customers to do business with the focal seller. For example, Collier (1995) reported that customers who made a negative experience with a service provider tell about ten other customers about their bad experience. As mentioned in the introduction, the posting of the US-Airways employee released a wave of indignation and most likely led to a drop of bookings. This non-reputable behaviour of the employee offended many customers and led to negative word of mouth. Therefore, we posit the following hypotheses.

H_{2a}: Employees' reputable (vs. non-reputable) behaviour in social networks positively affects customers' positive word of mouth related to the employer.

H_{3a}: Employees' non-reputable (vs. reputable) behaviour in social networks positively affects customers' negative word of mouth related to the employer.

The literature provides several general definitions² for corporate reputation such as “the outcome of a competitive process in which firms signal their key characteristics to constituents to maximize their social status” (Fombrun and Shanley 1990, p. 234). In this study, we are interested in customers' perceptions of a firm's standing, which is why we built upon the definition of CBR; “the customer's overall evaluation of a firm based on his or her reactions to the firm's goods, services, communication activities, interactions with the firm and/or its representatives or constituencies (such as employees, management, or other customers) and/or known corporate activities” (Walsh and Beatty 2007, p. 129). Both definitions are in line with signalling theory which explains that customers gather signals from the market and use this information to evaluate a company. CBR is an aggregation of information about a company which emerges over time on the customer side (Herbig and Milewicz 1993). Employees' behaviour in social networks might be considered an additional component of CBR. This leads to the assumption that CBR has a stronger effect on trust, positive and negative word of mouth than the behaviour of an employee in social networks as such. In turn, CBR might be influenced by harmful (or appropriate) employee behaviour. Therefore, we consider CBR as a mediator for the relations from employees' social network behaviour to customers' evaluations of companies (Walsh et al. 2009b).

H_{1b}: The positive relation between employees' reputable behaviour in social networks and customers' trust is mediated by customer perceptions of the employer's reputation.

H_{2b}: The positive relation between employees' reputable behaviour in social networks and customers' positive word of mouth is mediated by customer perceptions of the employer's reputation.

H_{3b}: The positive relation between employees' non-reputable behaviour in social networks and customers' negative word of mouth is mediated by customer perceptions of the employer's reputation.

² Further general definitions provided by: Bromley (2001, p. 317), Doney and Cannon (1997, p. 37), Fombrun et al. (2000, p. 243), Herbig and Milewicz (1993, p. 18) and Rose and Thomsen (2004, p. 202)

3 Method

3.1 Experimental design

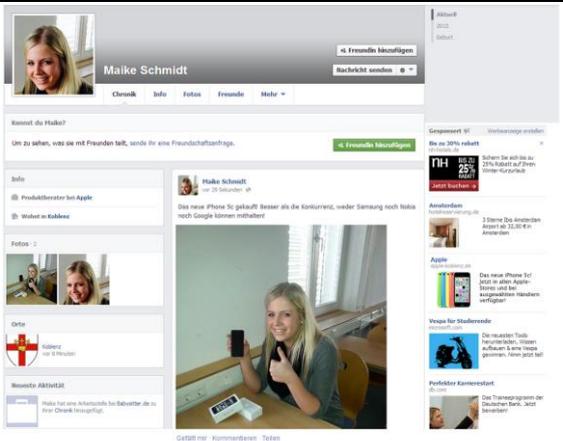
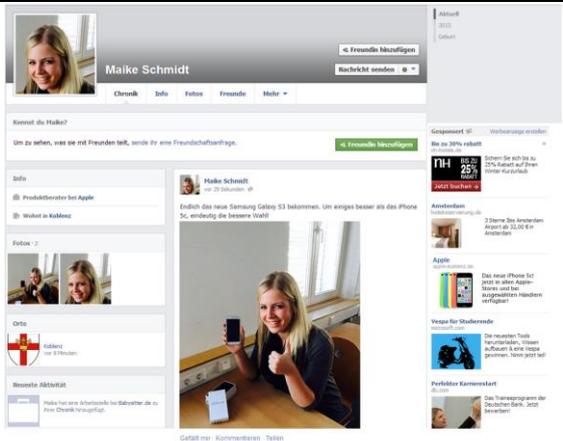
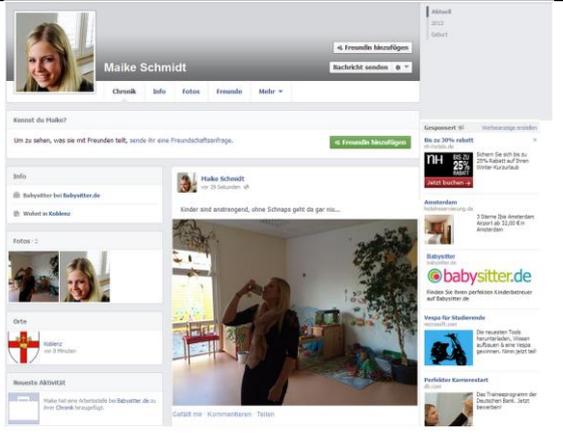
We tested our hypotheses with an experimental online survey design. In particular, we used a 2x2x2 between subject design and treated employee behaviour (factor1: reputable vs. non-reputable), employee gender (factor2: female vs. male) and corporate reputation of employer (factor3: high vs. low) on employees' Facebook profiles. Our hypotheses were developed in relation to factor 1, while factor 2 and factor 3 are used as treated controls. In particular, we created eight new (virtual) Facebook profiles that deviate in the respective dimensions. We decided to use new profiles because compared to existing profiles we could eliminate information that could affect the viewer's perception. For our (faked) Facebook profiles we used the visitor's perspective which includes standard elements of a social network profile such as a profile picture, name, advertisements, the Facebook timeline and the "about" area. The latter includes the profile owner's employer; an aspect of high importance for our research.

Our research design required to have employers with different corporate reputations - one with a high level of corporate reputation and one with a low level of corporate reputation. We evaluated different corporate reputation benchmarks, for example, World's most admired companies published by Fortune³. Finally, we chose Apple, because it was the most admired company across those benchmarks and was used in other research as a proxy for high reputation (e.g., Franke et al. 2013). For the company with low corporate reputation we decided to create a fake company that named Babysitter.de. As this company is not active in the market, an evaluation in the sense of Walsh and Beatty (2007) cannot be done. Thus, we used the fake company to ensure the lowest possible corporate reputation in comparison to Apple that has the highest reputation. We pretested corporate reputation of the chosen companies with 59 subjects, and found that the groups significantly differ. The means for the perception of corporate reputation, measured on a seven-point-Likert scale based on a short version of Walsh and Beatty (2007), where '7' indicates high reputation, supports the results for both companies (Apple = 5.13; Babysitter.de = 2.30). The second treatment pertained to the gender of the profile user. We included this manipulation to control for gender influences.

Finally, we manipulated employee behaviour, our independent variable, to test our hypotheses and used both pictures and comments to simulate employee behaviour on the Facebook. Upfront, we conducted nine qualitative customer interviews and basically asked 'What do you perceive as reputable/non-reputable behaviour with relation to Apple/Babysitter.de employees?' All interviews lasted approximately 20 min and were tape-recorded. Two authors and a student assistant independently from each other coded any occurrences of examples of positive or negative employee behaviour in social media. The interviews indicated, based on code frequencies, that an Apple employee who buys a competitors' product has a particularly negative effect on Apples' corporate reputation, due to the splitting of the community in the Apple supporters and Apple opponents. In addition, the interviews indicated a positive effect for those employees who identify themselves with the company and its products and services. With regard to babysitter.de a vast majority of interviewees stated that they would not tolerate a babysitter who works drunk or drinks alcohol while she/he is responsible for children. A positive impression seems to be if the babysitter not only supervises the children, but also actively engaged with the children and show their job satisfaction. Thus, in line with these interviews, a proxy for reputable behaviour was a picture of the happy looking employee, peppered with a comment that shows the esteem and pride of the employee for the employer and its products and services. Non-reputable behaviour was mirrored by using a picture that shows a faux pas in relation to the em-

³ <http://fortune.com/worlds-most-admired-companies/>, last access 09/23/2014

ployer in conjunction with an inappropriate comment. The factorial design of our experimental study is summarized in Table 1.

		Employees' behaviour in social network	
		high: reputable behaviour	low: non-reputable behaviour
Employers' corporate reputation	high: Apple Inc.	 <p><i>Picture:</i> Shows the happy employee with her new iPhone 5c, a key product of her employer.</p> <p><i>Comment:</i> I bought the new iPhone 5c! It is much better than those of competitors, neither Samsung nor Nokia or Google can keep up!</p>	 <p><i>Picture:</i> Shows the happy employee with her new smartphone from her employer's direct competitor.</p> <p><i>Comment:</i> Finally, I got the new Samsung Galaxy S3. It's a lot better than the iPhone 5c, clearly the better choice.</p>
	low: Babysitter.de	 <p><i>Picture:</i> Shows the employee happily playing with the children and happy about her job.</p> <p><i>Comment:</i> I have the best job in the world; I can play with toy cars and get paid for it!</p>	 <p><i>Picture:</i> Shows the unhappy employee drinking alcohol while she is responsible for the children who are playing in the background.</p> <p><i>Comment:</i> Kids are so exhausting, without liquor they are not to endure ...</p>

For reasons of space we report only the treated factors of the female profile. The treated factors of the male profile are identical, please contact the authors for these Figures.

Table 1. Treatment visualisation

3.2 Data collection and sample

To ensure external validity, our subjects had to represent the target group of customers as closely as possible. For the high corporate reputation scenario (Apple) the eligibility criteria requires that subjects already have a post-paid smartphone, because these subjects usually get the opportunity to

change their smartphone regularly, which makes them potential customers. An eligibility criterion for the low reputation scenario was that subjects are either parents or close family members (e.g., elder siblings) who were looking for a babysitter. We used a snowball technique to distribute the questionnaire via Facebook. Our invitation referred to an academic study regarding “smartphone social network usage of parents,” thus obscuring the real intention such that no potential self-selection bias would arise. Additionally, we randomly assigned each participant to one of the eight cases. We did not offer an incentive to participate which potentially reduces repeated participation. In addition, we ensured that the questionnaire could only be completed once from the same computer. A total of 422 potential customers participated in our study of which 246⁴ (58.3%) have completed the questionnaire. However, because we did not include a completeness check, we face data sets with missing values. Eleven cases were dropped because of systematically missing values, revealed by analysing missing values in SPSS 21. The same analysis yielded thirty eight cases which are affected by unsystematic missing values (i.e., not more than two missing values per subject). We handled these cases by imputing them with the mean replacement procedure, which leads to 234 cases without missing values. In our pre-test with 59 subjects we also had included Facebook profiles and asked for specific aspects of these profiles. It pointed out that 30 seconds is the minimum time required to identify all important aspects of the profile correctly (e.g., profile owners’ employers). Thus, sixteen customers were excluded because they viewed the treatment for less than 30 seconds. Finally, we had to drop nineteen subjects because they did not pass the manipulation checks at the end of the questionnaire (e.g., recalling the name of the employer). We were thus able to use the responses of 199 participants for our analysis: 44.7% of them were female; on average they were 27 years old; 41.7% of the respondents are employees themselves and 41.2% have a university-entrance diploma. Additionally, 51.3% use social networks up to two hours a day.

We investigated the potential for non-response bias by comparing the earliest 25% and the latest 25% of the respondents with regard to demographic variables and found no significant differences, which indicates the absence of non-response bias (Armstrong and Overton 1977).

3.3 Measures

The questionnaire contained multi-item measures of the important variables. The items we used were translated from a bi-lingual speaker into German for the final questionnaire. Our study relied on existing, validated scales and applied seven-point Likert scales ranging from 1 = strongly disagree, to 7 = strongly agree. Dependent on the random scenario the placeholder <company> is replaced with the company name Apple or Babysitter.de.

Trust. To measure customers’ trust we adapted six items from Morgan and Hunt (1994). We asked the subjects what they think about the company in relation to the employee’s Facebook-profile. We used items such as “This <company> can be relied upon” or “This <company> has high integrity”.

Positive word of mouth. We operationalized WoM⁺ as a multi-item construct measured by three items from Verhoef et al. (2002). We asked the subjects to assess the following items from their point of view. “I say positive things about <company> to people I know”; “If somebody asks advice with regard to a good <company> of the <industry >, I recommend this one”; “I encourage relatives and friends to do business with <company>”.

Negative word of mouth. We measured WoM⁻ by adapting three items recommended by Jones et al. (2007). These items are: “I have warned my friends and relatives not to do business with <company>”, “I have complained to my friends and relatives about this <company>”, and “I have told my friends and relatives not to use products and services of <company>”.

⁴ The vast majority (159 subjects) of those who did not complete the survey aborted the questionnaire on the welcome page where the intention of the study was explained.

Customer-based corporate reputation. To assess CBR we used a four-dimensional conceptualization of customer-based reputation by Walsh and Beatty (2007) and adapted items slightly to reflect online contexts. The four dimensions include being customer oriented, being a good employer, providing innovative products and services and being a financially strong company. To assess each dimension we relied on a short scale refined by Walsh et al. (2009a), which uses three items per dimension. In the following we show one sample item for each dimension: The <company>'s employees are concerned about customer needs, <company> looks like a company that would have good employees, <company> offers high quality products and services and <company> looks like a company with strong prospects for future growth.

Our operationalizations revealed a good internal reliability represented by the composite reliability (see Table 2) and Cronbach's Alpha values between .94 and .95.

Controls. To control for potential influences on the dependent variables by alternative variables we included a set of controls. Our research design includes two kinds of control variables. We used controls which were 'treated' and 'normal' controls. Treated controls are profiles' gender and the corporate reputation of the employer. We operationalised the profile's gender with a female profile name and a picture of a young woman. We created a dummy variable for profile gender where one is female and zero is male. We operationalized corporate reputation by using an employer with high corporate reputation and an employer with low corporate reputation. As established by our pre-test, Apple has a high corporate reputation and is dummy-coded with one and Babysitter.de got zero. Additionally, we controlled for respondents' sex, age, occupation (e.g., student, blue-collar worker, white collar worker, etc.), education, social network usage and Internet usage.

4 Findings

4.1 Measurement model evaluation

The measurement model was assessed by means of a confirmatory factor analysis (CFA) using AMOS 21 and a maximum likelihood estimator. The fit indexes for assessing model fit include chi-square (χ^2), degrees of freedom (*df*), root mean square error of approximation (RMSEA), standardized root mean square residual (SRMR), comparative fit index (CFI) and parsimony-adjusted normed fit index (PNFI), as recommended by Kline (2005) and Boomsma (2000). The analysis of the measured variables trust, positive word of mouth, negative word of mouth and customer-based corporate reputation revealed an appropriate model fit, with $\chi^2 = 708.94$, $df = 425$, $p = .000$ and $\chi^2/df = 1.67$. Accordingly, the requested threshold for χ^2/df of ≤ 2 is not exceeded (Byrne 1989). We discovered a good fit regarding RMSEA of .058 with a 90% confidence interval ranging from .05 to .06, which did not exceed the suggested cut-off value of .07. We hit the threshold for a well fitting for the model regarding SRMR (.05) (Diamantopoulos and Siguaaw 2000). Likewise, we established a good CFI of .95 acceptable PNFI of .70 which is only slightly above the suggested region around .50 (Mulaik et al. 1989).

	CR	AVE	MSV	ASV	Trust	WoM ⁺	WoM ⁻	CBR
Trust	0.95	0.75	0.61	0.13	0.87			
WoM ⁺	0.95	0.87	0.61	0.16	0.78	0.93		
WoM ⁻	0.95	0.85	0.22	0.05	-0.45	-0.39	0.92	
CBR	0.94	0.80	0.59	0.12	0.77	0.66	-0.47	0.90

Notes: CR = composite reliability; AVE = average variance extracted; MSV = maximum shared variance; ASV = average shared variance; WoM⁺ = positive word of mouth; WoM⁻ = negative word of mouth; CBR = customer-based corporate reputation; The diagonal displays the square root of AVE.

Table 2. Convergent validity, discriminant validity and correlations

To ensure discriminant and convergent validity of the measurement model, additional quality criteria must be satisfied. These include indicator reliability expressed by factor loadings greater than .5, construct reliability measured by composite reliability (CR) which should exceed .7, convergent validity

represented by average variance extracted (AVE) which should be greater than .5, and discriminant validity where the square root of AVE should be greater than inter-construct correlations (Bagozzi and Yi 2012; Fornell and Larcker 1981). Additionally, both maximum shared variance (MSV) and average shared variance (ASV) must be smaller than AVE (Hair et al. 2010). The measurement model passes all these quality criteria and thus the model revealed good reliability and validity. Detailed information is provided in Table 2.

4.2 Hypothesis testing

Before turning to the main results, we note that CBR is highly correlated with trust ($r = 0.77$, $p < 0.001$), positive word of mouth ($r = 0.66$) and negative word of mouth ($r = -0.47$), which might result in multi-collinearity issues. The highest variance inflation factor revealed by our tests was 1.5 which is below the recommended threshold (Hair et al. 2010). Thus, multi-collinearity is no problem for our hypotheses tests, especially as these variables are not used as independent variables simultaneously.

For testing the hypotheses we relied on the SPSS macro PROCESS by Hayes (2013), which has several advantages over more traditional tests of mediation such as testing for indirect effects with bootstrapping. Turning to trust first, we find that our hypotheses H_{1a} (employee behaviour positively affects trust) and H_{1b} (CBR mediates the effect from employee behaviour on trust) are supported by the data (Model 1a and 1b in Table 3), when an ordinary least square regression is used. It turned out that trust in a seller is higher if employees behave reputable in social networks (H_{1a} ; Model 1a; $b = 0.79$, $p < 0.001$). Model 1b reveals that CBR fully mediates the relation from employees' behaviour on trust, as expected (H_{1b} ; $b = 0.86$, $p < 0.001$). To further quantify the mediation effect we used bootstrapping with 1000 bootstrap samples. A 95% bias corrected bootstrap confidence interval of 0.26 to 0.91 indicates that the indirect effect of employee behaviour on trust through CBR is significant as the interval does not comprise zero. Furthermore, employees' (profile) gender has no impact on customers' trust in a seller (Model 1c; $b = -0.05^{n.s.}$). Additionally, the level of corporate reputation does not significantly affect customers' trust in the firm (Model 1d; $b = 0.32^{n.s.}$).

	Model 1a Trust	Model 1b Trust	Model 1c Trust	Model 1d Trust	
<i>Independent variable</i>					
Treated employee behaviour	.79 (.22)***	.22 (.16)	.21 (.16)	.24 (.16)	H_{1a}
<i>Mediating variable</i>					
CBR		.86 (.05)***	.86 (.05)***	.79 (.06)***	H_{1b}
95% confidence interval for indirect effects of Treatment on Trust through CBR	Effect [LLCI; ULCI]	.57 (.16) [.26; .91]	.57 (.16) [.27; .90]	.45 (.13) [.22; .72]	
<i>Treated controls</i>					
Gender (profile)			-.05 (.16)	-.04 (.16)	
Employer reputation				.32 (.17)	
R ²	.10	.57	.57	.57	
ΔR^2		.47	.00	.00	
F	2.940**	43.470***	41.441***	37.007***	
N	199	199	199	199	

Notes: CBR = Customer-based corporate reputation (manifest higher order construct consisting of four manifest sub-dimensions); LLCI = Lower level confidence interval; ULCI = Upper level confidence interval; The results reported with unstandardized coefficients and estimated under consideration of the controls sex (subject), age, occupation, education, social network usage and internet usage which we not report, to keep the table short. The controls are not significant except of Sex which had a slightly negative significant effect on trust; * $p < .05$, ** $p < .01$, *** $p < .001$

Table 3. Results of Regression Analysis – dependent variable: trust

Ordinary least squares analysis also yields support for our expectations regarding employees' behaviour in social networks and positive word of mouth. As surmised, employees' reputable behaviour in social networks positively impacts customers' positive word of mouth (H_{2a} ; Model 2a in Table 4; $b = 0.58$, $p < 0.05$). Moreover, we find strong support for our hypothesis 2b: the impact of employees' reputable behaviour on positive word of mouth is fully mediated by CBR (H_{2b} ; Model 2b in Table 4; $b = 0.87$, $p < 0.001$). Bootstrapping enables us to specify the mediation effect more precisely. On 1000 bootstrap samples the bias corrected confidence interval (95% level) ranges from 0.28 to 0.98. Accordingly, this is an evidence for significance of the indirect effect. The treated controls gender of the profile ($b = -0.06^{n.s.}$) and companies' corporate reputation ($b = -0.06^{n.s.}$) remain insignificant.

With regard to negative word of mouth, we again used linear regression analysis to test the expected effect: employees' non-reputable behaviour in social networks positively impacts customers' negative word of mouth. We find strong support for this hypothesis (H_{3a}), indicated by the following beta-value $b = -1.01$ ($p < 0.001$). Further analysis witnesses that CBR partially mediates the positive effect of employees' non-reputable behaviour in social networks on negative word of mouth (H_{3b} ; Model 3b in Table 5; $b = -0.66$, $p < 0.001$). The 95% bias corrected bootstrap confidence interval (bootstrap sample size = 1000) ranges from -0.74 to -0.19 and therefore corroborates the significance of the indirect effect. Model 3c in Table 5 shows that neither a female profile nor a male profile impacts negative word of mouth ($b = -0.08^{n.s.}$). Interestingly, high seller corporate reputation positively affects negative word of mouth ($b = 1.34$, $p < 0.001$).

	Model 2a WoM ⁺	Model 2b WoM ⁺	Model 2c WoM ⁺	Model 2d WoM ⁺	
<i>Independent variable</i>					
Treated employee behaviour	.58 (.27)*	.00 (.23)	.00 (.23)	-.00 (.23)	H _{2a}
<i>Mediating variable</i>					
CBR		.87 (.08)***	.87 (.08)***	.88 (.09)***	H _{2b}
95% confidence interval for indirect effects of Treatment on Trust through CBR	Effect [LLCI; ULCI]	.58 (.18) [.28; .98]	.58 (.17) [.20; .93]	.50 (.15) [.23; .83]	
<i>Treated controls</i>					
Gender (profile)			-.06 (.23)	-.06 (.23)	
Employer reputation				-.06 (.24)	
R ²	.07	.40	.40	.40	
Δ R ²		.33	.00	.00	
F	2.327*	19.115***	16.754***	15.232***	
N	199	199	199	199	

Notes: CBR = Customer-based corporate reputation (manifest higher order construct consisting of four manifest sub-dimensions); LLCI = Lower level confidence interval; ULCI = Upper level confidence interval; The results reported with unstandardized coefficients and estimated under consideration of the controls sex (subject), age, occupation, education, social network usage and internet usage which we not report, to keep the table short. The controls are not significant except of internet usage which had a slightly negative significant effect on WoM⁺ in Model 2a; * $p < .05$, ** $p < .01$, *** $p < .001$

Table 4. Results of Regression Analysis – dependent variable: positive word of mouth

	Model 3a WoM	Model 3b WoM	Model 3c WoM	Model 3d WoM	
<i>Independent variable</i>					
Treated employee behaviour	-1.01 (.29)***	-.57 (.28)*	-.57 (.28)*	-.48 (.27)	H _{3a}
<i>Mediating variable</i>					
CBR		-.66 (.11)***	-.66 (.11)***	-.94 (.13)***	H _{3b}
95% confidence interval for indirect effects of Treatment on Trust through CBR	Effect [LLCI; ULCI]	-.44 (.15) [-.79; -.19]	-.44 (.15) [-.82; -.21]	-.54 (.17) [-.92; -.24]	
<i>Treated controls</i>					
Gender (profile)			-.08 (.27)	-.03 (.26)	
Employer reputation				1.34 (.30)***	
R ²	.08	.24	.24	.31	
Δ R ²		.16	.00	.07	
F	2.381*	7.719***	6.819***	8.963***	
N	199	199	199	199	

Notes: CBR = Customer-based corporate reputation (manifest higher order construct consisting of four manifest sub-dimensions); LLCI = Lower level confidence interval; ULCI = Upper level confidence interval; The results reported with unstandardized coefficients and estimated under consideration of the controls sex (subject), age, occupation, education, social network usage and internet usage which we not report, to keep the table short. The controls are not significant; *p<.05, **p<.01, ***p<.001

Table 5. Results of Regression Analysis – dependent variable: negative word of mouth

5 Discussion

Although information systems researchers, management researchers, and practitioners show an increasing interest in consequences of employees' behaviour in social networks, we still know little about the effects of such behaviour on customer downstream variables. This research analyses the effect of employees' behaviour in social networks on customer evaluations of trust and positive and negative word of mouth. Our findings suggest that employees' social network behaviour indeed affect customers' perception of trust in the firm as well as positive and negative word of mouth. Additionally, our research finds support for the expected mediation hypothesis where CBR was expected to mediate the relation between employees' social network behaviour and the customer downstream variables. The results indicate that our treated control variables gender of the profile and corporate reputation of the employer have no effect on trust and positive word of mouth - except for one case. Surprisingly, employers' corporate reputation (i.e., Apple in comparison to Babysitter.com) has a strong effect on negative word of mouth. This finding was unexpected and suggests that if an employee of a high reputable employer shows non-reputable behaviour in social networks this leads to even higher negative word of mouth, in comparison to employers with low reputation.

5.1 Contribution to theory

Our findings have important implications for related theory. For example, reputation is defined as a stable concept that cannot easily be affected by short-term managerial actions (Walsh et al. 2009a). Our results point to the fact that customers' perceptions of reputation might be affected by harmful social network behaviour of employees, thus harming the long-taking process of establishing a high reputation. A huge amount of customers is organised in social networks and several sources state that

an average user of Facebook has more than 340⁵ friends. This implies that harmful employee behaviour might be shared rapidly with thousands of potential customers who become aware of non-appropriate behaviour that they mirror back to the employer. Of course, a corporate's overall reputation consists of evaluations not only from customers, also from own employees, stakeholders, and government (Fombrun et al. 2000). However, as customers are arguably the most important stakeholder group, future research could investigate how reputation should be protected in light of the social media phenomenon. IS-researchers should develop methods to manage (identify, evaluate and prevent) reputation-harming behaviour in social networks. Additionally, our research has interesting implications for boundary theory which states that individuals play multiple roles such as employee, boss and friend. These roles are different across goals, values, beliefs, norms and interaction styles (Ashforth et al. 2000, Koch et al. 2012). One's roles are mainly determined by the activity that the individual performs – as well as the social system (e.g., distributing tasks to subordinates in the office; meeting with friends in a coffee shop). Further research should focus on boundary theory because the boundaries between public life, private life and work life become blurred and today's employees – if janitor or board member – function as a company's ambassador.

5.2 Implications for managers

Some companies try to block social networks sites technically, but this will not solve the problem because employees have multiple access channels which cannot be controlled by companies. As misbehaviour will not only be attributed to the employee, but also to the employer, our research indicates that companies need social network guidelines for their employees. It will not be sufficient to create those guidelines; moreover, employees need to be trained in reputable social media behaviour. Blended-learning concepts seem to be a sufficient way to train reputable behaviour because it comprises the benefits of both face-to-face classroom methods and e-learning methods.

IS-practitioners can use our study to develop early warning systems for non-reputable employee behaviour in social networks. Additionally, managers should create a reputation goal cascade ranging from the highest organisational unit (e.g., executive board) to the lowest unit (e.g., work unit). Consequently, managers have to control for those reputation goals. The authors suggest establishing key performance indicators for reputation and include the indicators in their management dashboards.

5.3 Limitations and further research

Our research has some limitations that one has to take into account when using our results for own purposes. First, we tested our hypotheses for only one social network (Facebook) and one population. Further research should scrutinise the observed effects for other social networks such as LinkedIn, Xing, or Twitter and other populations. Second, theoretically, the observed effects in terms of reputation could also be a result of the differences between product markets (Scenario: Apple) and service markets (Scenario: Babysitter.de). Furthermore, there might be differences between experience and credence services (Keh and Pang 2010). As product and service categories affect word of mouth differently (Singh 1990), we suggest further research to concentrate on this limitation. Third, our experimental design only captures the difference between employees' reputable behaviour and employees' non-reputable behaviour. We did not take employees' 'neutral' behaviour into account. Further research should concentrate on defining employees' 'neutral' behaviour in social networks, that is, behaviour that neither positively nor negatively affects customer evaluations, and test its effect in comparison to this study's outcome variables.

⁵ URL: <http://blog.stephenwolfram.com/2013/04/data-science-of-the-facebook-world/>, last access 2014/10/14

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