Sales 2.0 in Business-to-Business (B2B) Networks: Conceptualization and Impact of Social Media in B2B Sales Relationships

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Abstract: In recent years, the rise of the digital transformation received significant importance in Business-to-Business (B2B) research. Social media applications provide executives with a raft of new options. Consequently, interfaces to social media platforms have also been integrated into B2B salesforce applications, although very little is as yet known about their usage and general impact on B2B sales performance. This paper evaluates 1) the conceptualization of social media usage in a dyadic B2B relationship; 2) the effects of a more differentiated usage construct on customer satisfaction; 3) antecedents of social media usage on multiple levels; and 4) the effectiveness of social media usage for different types of customers. The framework presented here is tested cross-industry against data collected from dyadic buyer-seller relationships in the IT service industry. The results elucidate the preconditions and the impact of social media usage strategies in B2B sales relations.

Keywords: Social Media, Salesforce Applications, Business-to-Business, Customer Satisfaction

1 Introduction

In recent years, the rise of the digital transformation has attracted much attention in various research disciplines ([We13]). This is especially valid for social media and the development of the so called Web 2.0. Global usage of popular social media sites like Facebook, YouTube, and Twitter has grown to the point where it can only be described as ubiquitous ([HN12, p. 69]). Social Media enable open and broad communication and cooperation ([LB09]). They facilitate business decision processes ([BM11]) and help to improve organizational productivity throughout the whole value chain ([Ch12]). Clearly, social media applications now provide corporate IT and management executives with a raft of new options – targeting the impact of direct user interaction, say, or the online integration of users in corporate value creation processes ([DGL12]).

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Thus, interfaces to social media platforms have recently also been integrated into salesforce applications ([BC12]; [GS11]; [Me10]), although very little is known about usage and general impact on B2B sales performance.

For all the valuable contributions made by social media research, a lot of important questions still remain unexplored ([HN12]). This is particularly true for the use of social media in B2B sales relationships. While two-third of US B2B sales executives reported viewing social media as an important channel to interact with customers, only seven percent of the survey group felt that their organization was adequately leveraging social media ([Ac11]).

In the digital era, customers have access to a wide array of information and so no longer rely on salespeople as sole source of information about products, services, and innovation ([BC12]). Instead, customers can gather information quickly and easily, use multiple sources of information, and interact how and when they want in the (digital) marketplace.

However, extant research offers only scant insight into the use of social media in B2B sales relationships. Therefore, we need to achieve a better strategic understanding of how to use social media in sales processes ([SP12]). Resultant strategies need to be conceptualized and evaluated with respect to their effect on important B2B sales objectives like customer satisfaction, loyalty, and sales performance. To date, research has confined itself to a quite holistic conceptualization of social media usage as a focal research construct, resulting in weak insights into the antecedents of social media usage in B2B sales relationships and only limited data about the impact of social media usage on B2B corporate objectives ([SSG12]). In particular, research needs to achieve a better understanding about the interplay of social media strategies with different types of customers.

Responding to these gaps in current social media research, this paper addresses the following four questions: 1) How should social media usage in B2B sales relationships be conceptualized on multiple levels? 2) Which B2B social media strategies are important in enhancing customer satisfaction? 3) Which antecedents drive the usage of social media on multiple levels? 4) How effective is social media usage in B2B sales relationships for different types of customers?

These questions have led us to formulate a conceptual model with a strong theoretical foundation in relationship theory. The model has been tested cross-industry against data collected from dyadic buyer-seller relationships in the IT service industry. Results elucidate the preconditions and the impact of social media usage strategies in B2B sales relations.


2 Conceptual Framework

The conceptual framework for evaluating the above research questions is set out in Figure 1. In line with our previous discussion, our framework includes multiple constructs for social media usage by sales representatives in B2B relationships (information, content generation, customer interaction). The three levels of social media usage are affected by three antecedents, namely corporate social media strategy, age, and the expertise of the sales representatives in the field of social media. Finally, we assume that social media usage on multiple levels impacts on customer satisfaction. The strength of the social media effect on customer satisfaction is moderated by various customer characteristics.

![Figure 1: Conceptual Framework](image)

2.1. Social Media Usage

Social Media Usage refers to the application of social media platforms like Facebook, Twitter, LinkedIn, or YouTube for business purposes. For all the current discussion around digital transformation, research about different types of social media usage remains weak ([SP12]). This is particularly true for the social media usage in B2B relationships ([SSG12]). Following an explorative study by Järvinen et al. ([Jä12]) social media applications are utilized for various B2B objectives.

A quite simple rationale for social media usage can be found in information processes. Social media are a potential source of relevant information in B2B relationships. Thus, sales representatives might use social media as an important source for their account- and opportunity management ([SP12]; [Be98]; [WW06]). Moreover, social media can be used for the generation of corporate content. This is especially the case when sales representatives engage in corporate storytelling, compile corporate blogs, or post relevant content on platforms like Facebook and Twitter ([Jä12]).
Finally, the bulk of existing research on social media usage concerns direct interaction between sales representatives and customers ([SP12]; [BC12]). The relationship to existing customers can be supported, for example, by facilitating the transaction process ([BGL02]).

Accordingly, social media usage by sales representatives may be resolved in terms of three independent constructs: (1) passive consumption of information via social media; (2) active generation of relevant content; and (3) direct interaction with current and potential customers.

2.2. Antecedents: Social Media Strategy, Age, and Expertise

The three focal constructs for social media usage are driven by three different antecedents. Social media strategy refers to the existence and quality of a corporate social media strategy. This leads to the question: What happens if the firm of a sales representative runs a corporate social media strategy and encourages the sales staff to participate in the implementation of this strategy? ([HWK 09]). Prior research suggests that salespeople are more likely to implement specific actions if sales managers, other executives, or even customers have the ability to reward desired and punish non-desired behavior ([Ve03]). The extent to which salespeople are integrated in a corporate strategy has a strong and positive influence on their decision to adopt and use technology ([AP05]). As more salespeople within the company come to use social media, it will be easier for a single B2B salesperson to follow suit; moreover, it will encourage more rapid adoption, as they will face the social pressure from their sales peers ([PS97]). Therefore, we hypothesize:

\[ H1-H3: \text{The quality of the corporate social media strategy has a positive impact on social media usage in terms of the consumption of information, content generation, and active interaction with customers.} \]
Additionally, some scholars argue that age has a negative impact on social media usage ([SSG12] p. 177). This leads to the assumption that the younger generation of salespeople will have shorter learning curves, that they will feel more comfortable with the new technology and show a higher preference for its use ([De09]). Several studies have found that younger salespeople tend to use technology more than older salespeople ([HP06]; [SPB07]). Thus, we hypothesize a negative relationship between age and social media usage:

**H4-H6:** The age of a sales representative has a negative impact on social media usage in terms of the consumption of information, content generation, and active interaction with customers.

Finally, it is viable to assume that the individual expertise in operating social media has a positive impact on social media usage. Intention-based models, such as the technology acceptance model (TAM) ([DBW89]), have been at the heart of information technology acceptance and usage research ([Ve03]). Such models postulate that technology-related expertise impacts on user attitudes and the specific usage of new media and technologies ([BS06]). Salespeople with a high individual expertise will develop a positive attitude to social media. Hence, it is more likely that they will try to integrate social media into their core business processes. Therefore we assume:

**H7-H9:** The expertise of a salesperson in the area of social media has a positive impact on social media usage in terms of the consumption of information, content generation, and active interaction with customers.

Our conceptual research model contains one organizational and two individual antecedents impacting on the three different constructs for social media usage. This promises to yield a better understanding about the different facets of social media usage and potential strategies to raise salespeople’s technology acceptance.

### 2.3. Customer Satisfaction and Customer Characteristics

The research model outlined in Figure 1 displays customer satisfaction as a key target construct for social media usage. Customer satisfaction is a key objective in B2B sales relations ([AFM04]; [GR05]; [HKH05]; [WN11]) and impacts on other important constructs like customer repurchase intentions ([Cu12]; [MK01]), positive word of mouth ([PBZ91]) and financial performance ([AFL94]; [AM00]; [BDK00]). In short, improved customer satisfaction typically leads to improved revenue flows, profitability, cash flow, and stock price of the firm. Therefore, customer satisfaction may be viewed as an early and important goal in B2B sales relations. Generally, customer satisfaction refers to the degree to which a customer perceives the overall performance of a supplier as meeting or exceeding expectations.
**H10-H12**: Social media usage of sales representatives in terms of the consumption of information, content generation, and active interaction with customers has a positive impact on customer satisfaction.

Furthermore, researchers assume that various customer characteristics moderate the relationship between social media usage and customer satisfaction, e.g. the customer’s relationship orientation ([PS03]), the age of the customer ([HP06]), and the degree to which a customer uses social media itself for purposes of relationship management ([Sa12]). All three constructs are well described in current research. Thus, we integrated three alternative customer characteristics in our model and tested the impact of this variation on the effect of social media usage on customer satisfaction.

**H13a-H13c**: Customers with a strong relationship orientation, younger age, and intensive social media usage impact positively on the relationship between sales representatives’ social media usage and customer satisfaction.

### 3 Method

We tested the formulated hypotheses using dyadic cross-industry data collected from sales representatives and customers for IT services. Thus, we implemented a three-step approach in order to create a random sample of dyadic B2B sales and customer relationships. The unit of interest was the customer’s IT department. First of all, we addressed the top management of these units or alternatively the Chief Information Officers (CIOs). In the latter case, CIOs were identified from mailing lists procured from a commercial list broker. We filtered firms using regional (Austria, Germany, Switzerland) and organizational (firms with more than 1,000 employees) criteria. All incomplete addresses were removed to yield an initial cross-industry sample of 2,676 firms. These firms received a letter of solicitation via email that included a brief description of the project and its purpose. With a response rate of 13.52 %, 362 CIOs agreed to participate. As a second step, we directed the CIOs to randomly select three to five suppliers they have worked with on an IT project during the last three years, subject only to the proviso that the suppliers selected had to represent a range of sizes, sales, and relationship durations. Finally, we conducted a random sample (1 out of 5) to identify 362 focal customer-supplier relationships. The questionnaires for CIOs and sales representatives were developed based on the same procedures that Churchill ([Ch79]) and Gerbing and Anderson ([GA88]) recommend. Initially, six interviews with CIOs and sales representatives were conducted. These explorative interviews, lasting approximately ten hours, helped to develop relevant measurement scales. Based on these interviews and an extensive review of extant research papers, preliminary versions of the questionnaire were developed. Finally, we integrated 220 dyadic relationships in the main sample. All interviews in the final sample were conducted by phone and recorded digitally in order to ensure that the questionnaires were properly administered.
4 Results

The unidimensionality and convergent validity of the constructs were examined by confirmatory factor analysis (CFA) performed with LISREL. All items load on their respective constructs, and each loading is large and significant at the 0.01 level, thus demonstrating satisfactory convergent validity ([AG88]). To assess the discriminant validity of the constructs, a model constraining the correlation between a pair of constructs to 1 was compared with an unconstrained model. To indicate discriminant validity, the unconstrained model must fit significantly better than the constrained model ([BYP92]). The pairwise chi-square difference tests indicate, in each case, that the chi-square difference statistic is significant at the .01 level, thus supporting discriminant validity. In addition, all pairs of constructs pass Fornell and Larcker’s ([FL81]) test of discriminant validity. That is, the amount of variance extracted by each construct is greater than the squared correlation between the two constructs. After the measurement models were deemed acceptable, we estimated a structural path model to test the hypotheses depicted in Figure 1. The fit indexes ($\chi^2(168) = 292.33; \text{CFI} = .986; \text{NFI} = .970; \text{RMSEA} = .058$) suggest that the model acceptably fits the data ([By98]).

A chi-square difference test reveals that a model with direct effects (direct paths from the antecedent variables to the target variable) does not have significantly better fit indexes than our full mediation model (Figure 1), suggesting that our model provides a parsimonious explanation of the data ([BY88]). Table 1 summarizes the results. No less than 10 of 12 hypotheses were supported.

![Table 1: Hypotheses, main effects, coefficients, t-values](image)

Additionally, according to our research model, we applied an established multigroup method to analyze the differences between various subsamples with different customer characteristics ([Pi95]; [SH89]). Thus, we used an extended LISREL model with mean structures ([JS96]). Accordingly, we divided the main sample into two sub-samples, integrated the mean structures in the model, and estimated a multisample analysis.


<table>
<thead>
<tr>
<th>Hyp.</th>
<th>Effect</th>
<th>β-low</th>
<th>β-high</th>
<th>t-value</th>
<th>result</th>
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<tr>
<td>H13A</td>
<td>Relationship Orientation</td>
<td></td>
<td></td>
<td></td>
<td>(+)</td>
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<tr>
<td>Model 1</td>
<td>Information → Customer Satisfaction</td>
<td>.22</td>
<td>.52</td>
<td>9.46</td>
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<tr>
<td></td>
<td>Content → Customer Satisfaction</td>
<td>.31</td>
<td>.26</td>
<td>5.38</td>
<td>(-)</td>
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<tr>
<td></td>
<td>Interaction → Customer Satisfaction</td>
<td>.18</td>
<td>.56</td>
<td>12.67</td>
<td>(+)</td>
</tr>
<tr>
<td>H13B</td>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td>(+)</td>
</tr>
<tr>
<td>Model 2</td>
<td>Information → Customer Satisfaction</td>
<td>.41</td>
<td>.43</td>
<td>14.76</td>
<td>(-)</td>
</tr>
<tr>
<td></td>
<td>Content → Customer Satisfaction</td>
<td>.36</td>
<td>.39</td>
<td>8.24</td>
<td>(-)</td>
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<tr>
<td></td>
<td>Interaction → Customer Satisfaction</td>
<td>.33</td>
<td>.18</td>
<td>12.61</td>
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<tr>
<td>H13C</td>
<td>Customer’s Social Media Usage</td>
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<td></td>
<td></td>
<td>(+)</td>
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<tr>
<td>Model 3</td>
<td>Information → Customer Satisfaction</td>
<td>.23</td>
<td>.27</td>
<td>8.23</td>
<td>(+)</td>
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<td></td>
<td>Content → Customer Satisfaction</td>
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<td>14.74</td>
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<tr>
<td></td>
<td>Interaction → Customer Satisfaction</td>
<td>.32</td>
<td>.76</td>
<td>12.23</td>
<td>(+)</td>
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</tbody>
</table>

Fit Indices Model 1: $\chi^2(168) = 312.18$; CFI= .942; NFI= .982; RMSEA = .061
Fit Indices Model 2: $\chi^2(168) = 332.22$; CFI= .943; NFI= .989; RMSEA = .064
Fit Indices Model 3: $\chi^2(168) = 267.21$; CFI= .991; NFI= .989; RMSEA = .056

Tab. 2: Multisample analysis

This procedure was repeated for each customer construct. The fit indexes for the three multisample analyses suggest that the models acceptably fit the data. The three basic moderation hypotheses received differential support. Table 2 summarizes the results.

5 Discussion

The outlined research model has several theoretical implications for social media usage in B2B sales relationships. In the first instance, social media usage can be resolved into three independent constructs: information usage, content generation, and customer interaction. In general, all three constructs impact positively on customer satisfaction, with content generation having the strongest effect ($\beta = .43$), followed by information usage ($\beta = .41$) and customer interaction ($\beta = .33$). Therefore, sales representatives in B2B relationships should use social media if they are to increase customer satisfaction.

Moreover, the focal constructs are affected by the three observed antecedents in different ways. A salesperson’s expertise in the area of social media has by far the strongest impact on information usage ($\beta = .74$). Accordingly, the otherwise similar effect of a corporate social media strategy is less important ($\beta = .26$). This direction is also significant for customer interaction. Again, social media expertise plays a major role ($\beta = .84$), compared to the impact of a corporate social media strategy ($\beta = .17$). In contrast, the alignment effect of corporate strategy is particularly important in the field of content generation. Therefore,
the quality of the corporate social media strategy impacts more strongly on content generation ($\beta=.38$), compared to the similar effect of expertise ($\beta=.19$). Clearly, organizational factors are particularly important if corporations intend to increase the social media content created by sales representatives. This could be explained by the resource situation of sales representatives (time for content generation, pre-defined organizational content) or else by security and compliance considerations (approval for content generation). The social media expertise of sales representatives is more important when corporations focus on information usage and customer interaction. These theoretical interactions and, in particular, the dynamic interplay between organization/individual factors and different variations for social media usage are not covered by current research.

Surprisingly, the key assumptions for the impact of age on social media usage were not fully supported by our research. The age of sales representatives has no general negative impact on social media usage. Clearly, salespeople in a higher age bracket also use the information offered by social media. They are also motivated and able to interact with customers using social media platforms. Nevertheless, a negative effect of age on content generation was supported by our research ($\beta= -.33$). Thus, older salespeople seem to use social media in passive ways (information) or if it is important for interacting with the customer, but they are less motivated to create their own content.

Additionally, the outlined research holds further relevant implications, due to the impact of social media usage with different customer characteristics. Generally, the impact of social media usage is more relevant in all three variations when the customers themselves use social media. Again, age is particularly important in the area of interaction. Hence, it is more important to use social media for interaction with younger customers ($\beta=.33$), compared to the same situation with older customers ($\beta=.18$). Accordingly, our research found no support for further moderation effects driven by the age of the customer. Finally, the customer’s relationship orientation (transactional versus relational) impacts on the strength of the outlined main effects. The usage of information provided by social media and direct interaction is significantly more important for relational customers, whereas this effect is not supported for content generation.

Even more promising for executives are the managerial implications outlined by this research. Marketing and sales executives should foster the expertise of their sales representatives in the area of social media. This will lead to a stronger usage of information delivered though these new media formats for purposes of B2B account- and opportunity management. Moreover, the expertise of sales representatives drives direct interaction with B2B customers. Such strategies are particularly important for corporations handling customer relationships or dealing with customers who use social media intensively for their own business. A strong corporate social media strategy and viable formats for training and personal development will both contribute significantly to customer satisfaction. In sum, social media will continue to play an important role for sales performance in B2B relationships.
References


