Research Report

Increasing Sales Performance through Social Media Activities

SOCIAL MEDIA PLATFORMS PRESENT UNIQUE POSSIBILITIES FOR COMPANIES TO INTERACT WITH THEIR CUSTOMERS AND TAKE UP A KEY ROLE IN BUILDING RELATIONSHIPS. HOWEVER, LITTLE IS KNOWN CONCERNING THE FINANCIAL RETURN ON INVESTMENT FROM SOCIAL MEDIA ENGAGEMENT AND SPECIFIC STRATEGIES TO LEVERAGE IT. THE ANALYSIS OF OVER 1.5 MILLION TWEETS REVOLVING AROUND TEN CAR MANUFACTURERS SUGGESTS THAT COMPANIES CAN INCREASE THEIR SALES VOLUME THROUGH GREATER RELATIONSHIP INVESTMENT AND BY ADOPTING A SOCIAL MEDIA STRATEGY THAT PROMOTES THE USERS' RELATIONSHIP SATISFACTION.

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Introduction

Social Media platforms have become an established channel for companies to engage with users, draw conclusions about their opinions, and increase brand awareness. Especially the service-driven financial sector can use Social Media as a means of contact with their customers and as a channel to frequently engage with customers. Accordingly, many companies operate Social Media accounts to exchange information with their customers. 56% of practitioners report that the biggest issue of social marketing was to relate Social Media activities to business outcomes and that – as Social Media mature – bottom-line objective financial outcomes become essential. However, research has just begun to investigate the return on investment (ROI) that companies can derive from Social Media. The majority of the respective finance research measures the effects on firm equity value (e.g., Tobin's q, abnormal returns, stock prices) especially under consideration of user-generated content. In this study, we focus on factors in the context of Social Media that enhance objective firm performance, which is currently only insufficiently understood (Aral et al., 2013). For this purpose, we transfer the established relationship marketing framework of factors influencing the effectiveness of relationship marketing from Palmatier et al. (2006), which provides an extensive overview of key constructs and their relations (see Figure 1 based on Palmatier et al., 2006).

Social Media Affecting Objective Firm Performance

Substantial amounts of research have investigated the role of Social Media on firm performance. Finance research generally established a positive relationship between objective firm performance in terms of equity value and user sentiment across different types of content (i.e., consumer ratings, forum postings, blogs, and microblogging messages) with a particularly strong effect of negative sentiment and user engagement (i.e., postings, comments, likes). Regarding actual sales figures, findings demonstrate the respective predictive power of online search behavior, user sentiment, active corporate Social Media engagement, and marketing campaigns. Recent research, however, suggests a more complex and mediated process in which Social Media activities affect sales (Goh et al., 2013), which has generally been neglected so far. Thus, we dismantle

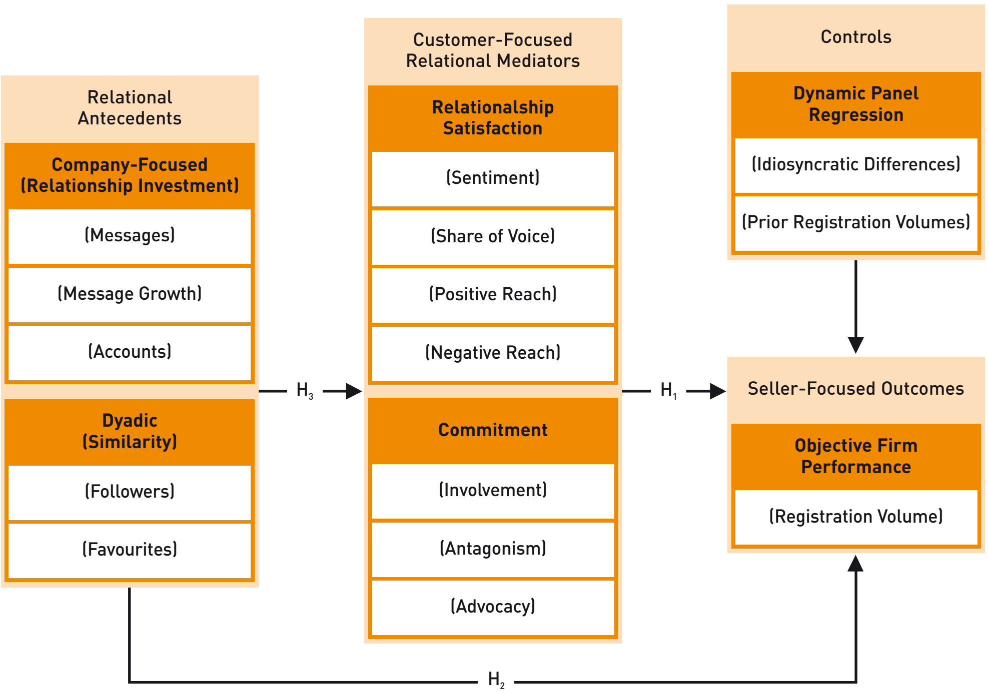

Figure 1: Research Model for Dismantling the Process of Social Media Related Sales Performance

the process of Social Media related sales by applying an established relationship marketing framework (Palmatier et al., 2006).

Relationship Satisfaction and Commitment Improving Sales

Most of the relevant research relating Social Media metrics to actual firm performance has addressed these customer-focused perceptions of a brand: commitment and relationship satisfaction.

Commitment describes the enduring desire to maintain a valued relationship while relationship satisfaction represents the customer's affective or emotional attitude toward a relationship. Both constructs have been assessed in different ways, such as user ratings of a company's products, the sentiment expressed in messages about a company across different platforms (i.e., blogs, microblogs, e-commerce websites, and forums), or active consumer engagement. The Social Media enabled relationship strength has even stronger explanatory power of company performance than alternative behavioral metrics online (e.g., Google searches) or offline (e.g., conventional media). These findings pertain across industries as well as in the automotive sector. Considering the apparent theoretical and empirical insights, we propose:

Hypothesis 1: The stronger the relational bonding between users and companies, the better the companies' sales performance.

Objective Firm Performance		Model 1		Model 2		Model 3	
		b	(SE)	b	(SE)	b	(SE)
Relational Antecedents							
Company-Focused	Messages	-4,6*	(2.22)	---		-3.033†	(1.78)
	In_Messages	-468.03	(298.29)	---		-616.25	(388.11)
	Accounts	522.19*	(263.77)	---		413.73	(252.79)
Dyadic	Followers	.3**	(.1)	---		.2	(.1)
	Favourites	-.014	(.01)	---		-.0144†	(.008)
Customer-Focused Relational Mediators							
Relationship Satisfaction	Sentiment	---		-2026.68	(2194.29)	---	
	Share of Voice	---		.33*	(.14)	.66**	
	Positive_Reach	---		1430.5*	(697.62)	---	
	Negative_Reach	---		1261.86	(944.59)	---	
Commitment	Involvement	---		1154.96*	(658.2)	---	
	Antagonism	---		-424.73	(279.8)	---	
	Advocacy	---		1592.63*	(788.9)	---	
Model Test Specifications							
Observations		274		389		274	
Instruments		193		204		194	
Groups		25		25		25	
Test Statistic		4827.79***		26470.57***		4513.59***	

Test statistic. Wald-X^2 for the regression analyses.
Statistics. Robust standard errors displayed in parentheses behind unstandardized coefficients for the regression analyses; follower numbers in thousands.
p-values. *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$ significant; † $p < 0.1$ tendential significance.

Table 1: Results of the Five Month Lagged Dyadic Panel Regression Analysis

Increasing Sales through Similarity and Relationship Investment

Relationship investment has been found to have the strongest direct impact on sales performance. It is defined through the amount of resources (e.g., time, effort, or personnel) spent on building stronger relationships with customers. Similarity of users and companies is broadly understood as the degree of commonality in appearance and values between parties. Research generally shows that increased corporate engagement in Social Media and a firm's capability to implement user-generated innovation recommendations improves its financial value. Furthermore, the public display of similarity with a brand by becoming a follower has been found to cause a feeling of connectedness and increases the profitability of a company. Thus, we hypothesize:

Hypothesis 2: The stronger the relational antecedents, the better the companies' sales performance.

Mediated Impact on Sales Figures

While the specific type of relational bonding variable usually differs across studies, relationship marketing literature consistently assumes a mediating model for the impact of relational antecedents on objective performance. Relationship investment and similarity have been found to be strongly related to relational mediators. Only a small share of information systems research has considered mediating effects on the firm sales performance. These findings, however, support the assumption of a mediating role of user-focused characteristics for the efficacy of corporate endeavors on its profits. Increased offline investments in terms of advertizing campaigns translate into improved relationship satisfaction on Social Media platforms (i.e., share of voice and sentiment), which account for abnormal returns on the stock market. Similarly, commitment in terms of user engagement behavior has been found to mediate the effects of regular relationship investment on corporate equity values. We therefore assume:

Hypothesis 3: The effects of relational antecedents on the companies' sales performance are mediated by the strength of the relational bonding between users and companies.

Empirical Investigation

In order to examine the effects of Social Media on business outcomes and how companies can extract value from Social Media, we analyzed B2C relationships between carmakers and their customers on Twitter and the respective seller performance in terms of new car registrations. To test the assumed research model, we collected and analyzed a data set of over 1.5 million Twitter messages revolving around ten car manufacturers and measured the impact on new car registration volumes. We transformed our data set into the different antecedent, mediator, and outcome variables. To measure the objective performance of a company, in line with previous studies, we used the monthly new vehicle registration volumes as a proxy for car sales. To test our hypotheses, we conducted three separate five-months lagged linear dynamic panel regressions with robust standard errors and a canonical correlation between predictor and mediator variables to consider respective interdependencies principally guided by the classical mediator analysis approach (Table 1).

The second panel regression (see Model 2 in Table 1) reveals that the relational bond between users and companies on Social Media can predict car registrations five months in advance (hypothesis 1). They show more precisely that an outspoken support community which reaches a large follower base can encourage prospects to purchase a vehicle, while brand antagonists cannot deter generally interested customers and, thus, cannot reduce sales figures.

The results regarding hypothesis 2 generally show that not only user-focused metrics but also corporate and dyadic relational endeavors affect a company's performance (see Model 1 in Table 1). Out of the different facets considered in this study, we find that the number of accounts a company operates and the number of followers of these accounts positively affect car sales. The number of messages a company sends, however, negatively influences registration numbers. It seems not necessarily expedient to send large amounts of messages, but that it is advisable to occasionally send fewer messages to a targeted community through specialized company accounts.

Thus, to test the mediating effects of hypothesis 3, we included user share of voice – based on the findings of a canonical regression – as a mediator variable in the third regression (see Model 3 in Table 1). The user share of voice indicates the relative share of the addressed user group. The analysis generally supports the hypothesis that customer-based relationship bonds mediate effects of relational antecedents on sales performance. This indicates that by operating multiple accounts, providing targeted information, and inspiring users to follow the accounts, companies can increase their share of voice among users and ultimately increase the number of sold cars.

Discussion of the Results

The goal of this study was to investigate the impact of corporate engagement efforts (i.e., relationship investment), customer-conceived relationship bonding (i.e., relationship satisfaction and commitment), and shared relationship perceptions (i.e., similarity) on the objective corporate performance. Generally, our results support the assumed model of strong relational antecedents translating into increased sales numbers mediated through the customer-focused relationship strength.

Specifically, we find that an increased corporate relationship investment in form of targeted communication from interest group specific accounts translates into higher sales numbers. Also, the commonly neglected dyadic relational antecedents, which are measured by follower numbers, translate into an improved sales performance. The regression coefficient seems relatively small ($b_{Followers} = 0.3$), which indicates that approximately for every additional 3,333 followers reached by a company, one additional car is sold. In a simplified calculation, considering the average price of EUR 28,330 (approximately USD 37,679) of a newly registered car in the considered market during the analysis period, this would represent an average gross value of EUR 8.50 (approximately USD 11.30) for every follower in our study setup.

Based on the apparent findings, to increase the Social Media financial ROI, our recommendations for Social Media managers on Twitter are as follows:

- Social Media managers should focus on increasing the company's share of voice among the users in order to leverage the financial return of the corporate relationship investment and their follower base. Related research has shown that this can be achieved, for example, through aligned online or offline advertisement campaigns.

- Firms benefit from a far reach of positive messages about the brand made by supportive users. Thus, we recommend concentrating Social Media activities on building user advocates and encouraging them to spread positive messages about the company. This can be achieved, for example, by sharing targeted interest group specific information.

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