Effects of social media communication on brand equity and brand purchase intention

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Abstract: The author studied the effect of two different social media communications on brand equity and brand purchase intention. 504 data sets were generated through a standardized online-survey and analysed with structural equation modelling. The results of the empirical study showed that both firm-created and user-generated social media communication influenced brand equity, consequently impacting brand purchase intention. This study also investigated the direct and indirect effects of social media communication on brand purchase intention. The results show that there is a partial mediation across firm-created social media communication and purchase intention; and a full mediation across user-generated social media communication and purchase intention. This study also offers insights for brand and marketing managers.

1. Introduction

The notion of social media is far from revolutionary. Nevertheless, there seems to be a confusion among marketing managers and academics alike as to what exactly should be included under this umbrella term, and how social media differ from Web 2.0 and user-generated content (Kaplan and Haenlein, 2010).

Web 2.0 is a term that describes the Internet as a platform whereby content and applications are no longer created and published by companies and individuals, but instead are continuously modified by all internet users in a participatory and collaborative approach (Li and Bernoff, 2011).

User-generated content (UGC) can be understood as the sum of all ways in which people make use of social media. The term user-generated content is usually applied to describe the various forms of media content that are publicly available and created by Internet users (Kaplan and Haenlein, 2010). According to the Organisation for Economic Cooperation and Development (OECD, 2007), user-generated content needs to fulfil three requirements in order to be considered as such: (a) it needs to

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be published either on a publicly accessible website or on a social networking site accessible to a group of individuals; (b), it needs to present a certain amount of creative effort; and (c), it needs to have been created outside of professional routines and practices.

This article investigates the impact of firm-created and user-generated content on the social networking site Facebook on brand equity. It also investigates the effects of these two forms of social media communications on brand purchase intention. This paper is organized as follows. The first section presents a description of the conceptual model and the hypothesis of this study. The second section presents the data sources and empirical framework, as well as the estimations. The third section introduces the outline for the quantitative empirical analysis used to verify the proposed model. The last section provides a summary and a discussion of the results. Suggestions for further research are also included in this article.

2. Conceptual framework and hypothesis development

Research has shown that communication stimuli positively influence the customer as a recipient. Consequently, brand communication is positively correlated with brand equity as long as the message drives customer reaction to the product in question, compared to a non-branded good in its product category (Yoo et al., 2000). Moreover, it is possible to say that a correct brand communication improves brand equity by increasing the probability that a brand/product will be incorporated into the customer’s mind set, thus shortening the process of brand decision making and turning that choice into a habit (Keller, 1993; Yoo et al., 2000). Thus, the following hypotheses are postulated:

H1 Firm-created social media communication positively influences brand equity.

H2 User-generated social media communication positively influences brand equity.

The majority of findings about behavioural efficiency of online advertising suggests a positive impact on the individual’s behaviour or behavioural intentions (Manchanda et al., 2006; Martin et al., 2003). Moreover, a strong influence of advertising stimuli on purchase intention was already reported in literature (Groenhaug et al., 1991). Therefore, it is possible to say that:

H3 Brand equity positively influences brand purchase intention

A graphical illustration of the conceptual framework and hypothesis is presented in Fig. 1.

Among the objectives of this study, it is also relevant to investigate whether brand equity works as a moderator between the two different kinds of social media communication and brand purchase intention.

3. Methodology, Results, and Implications

To test the model presented in Figure 1, data was collected using a standardized online survey on Facebook. The questionnaire was administered in Polish. As recommended by Craig and Douglas (2000) a back-translation process was employed to
ensure that the indicators were translated correctly. As a requisite for the study, all respondents needed to receive news feeds from both the companies and other users about brands they have previously "liked" on the social network site. Each respondent completed one version of the questionnaire, evaluating only one brand. A total of 523 questionnaires were completed. Incomplete surveys were rejected, resulting in 504 valid entries.

Measures used in the study were adapted from relevant literature and measured using a 7-point Likert type scales, ranging from 1 "strongly disagree" to 7 "strongly agree" (Aaker et al., 2007). Brand equity was measured using the overall brand equity scale adopted from Yoo and Donthu (2001). Purchase intention was measured using three items adapted from Yoo et al. (2000); Shukla (2011). Finally, firm-created and user-generated social media communication were measured using four items adopted from Mägi (2003); Tsiros et al. (2004); Schivinski and Dabrowski (2013b).

To assess the reliability of the measures, Cronbach’s $\alpha$ was calculated and an exploratory factor analysis (EFA) with varimax rotation was performed on each scale. Cronbach’s $\alpha$ coefficients for all four constructs were above 0.70. The $\alpha$ coefficients ranged from 0.92 to 0.97. During the EFA, all items in each subscale loaded on a single factor, suggesting that user-generated social media communication, firm-created social media communication, brand equity, and brand purchase intentions are unidimensional. All factor loadings exceed the 0.70 threshold, and there was no evidence of cross-loadings (Byrne, 2010). One item used to measure brand equity was excluded from the analysis because of an insufficient loading value (0.64).

For model fit, structural equation modelling in AMOS 21.0 software was used. The conceptual framework led to a good fit as recommended in the literature (Hair et al., 2010). The cmin/df value was 2.81, the CFI value was 0.98, the AGFI value was 0.91, the SRMR value was 0.05, and the TLI value was 0.97. The RMSEA value was 0.06; 90% C.I. 0.05, 0.07.

The results and implications of the model are given as follows. Firm-created social media communication showed positive influence on brand equity, which confirmed hypothesis $H1$ ($p$-value > 0.001; $t$-value 3.64; $\beta$ 0.21). User-generated social media communication also showed positive influence on brand equity, which confirmed hypothesis $H2$ ($p$-value > 0.001; $t$-value 7.00; $\beta$ 0.42). Finally, brand equity showed a strong positive influence on brand purchase intention, which confirmed hypothesis $H3$ ($p$-value > 0.001; $t$-value 19.80; $\beta$ 0.76). Figure 2 shows the estimates for the framework.

Fig. 1. Conceptual framework
Fig. 2. Standardized estimates for the conceptual model

Tab. 1. Tests for direct and indirect moderation

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Direct $\beta$ without mediation</th>
<th>Direct $\beta$ with mediation</th>
<th>Indirect $\beta$</th>
<th>Mediation type observed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mediation FC-BE-PI</td>
<td>0.26$^2$</td>
<td>0.134$^2$</td>
<td>0.126$^2$</td>
<td>Partial</td>
</tr>
<tr>
<td>Mediation UG-BE-PI</td>
<td>0.35$^2$</td>
<td>0.082 [ns]</td>
<td>0.266$^3$</td>
<td>Full</td>
</tr>
</tbody>
</table>

To test for the brand equity moderation between the two types of social media communication and purchase intention AMOS 21.0 software was used. Two additional paths were included in the analyses, indicating the direct relationships of firm-created social media communication to purchase intention, and user-generated social media communication to purchase intention. A bootstrap of 2,000 samples was performed with a 95% bias-corrected confidence intervals. Both social media communication types presented statistically significant direct effects without the mediation of the brand equity variable. For firm-created social media communication the $\beta$ value was 0.26; p-value 0.0001, whereas for user-generated social media communication the $\beta$ value was 0.35; p-value 0.0001. The results of the tests can be found in Table 1.

The relationship among firm-created social media communication and purchase intention showed a partial mediation. This conclusion can be drawn from the fact that both standardized direct effects with mediation (p-value 0.007; $\beta$ 0.134) and standardized indirect effects (p-value 0.005; $\beta$ 0.126) were statistically significant.

The relationship among user-generated social media communication and purchase intention showed a full mediation. This is drawn from the fact that the direct effects were significant prior to adding brand equity as a mediator and the indirect effect was significant (p-value 0.001; $\beta$ 0.266) while the direct effect with mediation was not significant (p-value 0.114; $\beta$ 0.082).

\[ t \geq 3.64, \text{ p-value} \leq 0.001; \text{ cmin/df} = 2.81; \text{ CFI} = 0.98; \text{ AGFI} = 0.91; \text{ SRMR} = 0.05; \text{ TLI} = 0.97; \text{ RMSEA} = 0.06 \]

\[ p-value \geq 0.007; \text{ cmin/df} = 2.81; \text{ CFI} = 0.98; \text{ AGFI} = 0.91; \text{ SRMR} = 0.05; \text{ TLI} = 0.97; \text{ RMSEA} = 0.06 \]

\[ p-value 0.001; \text{ cmin/df} = 2.81; \text{ CFI} = 0.98; \text{ AGFI} = 0.91; \text{ SRMR} = 0.05; \text{ TLI} = 0.97; \text{ RMSEA} = 0.06 \]
4. Summary and Discussion

This study offers two contributions to researchers and marketing managers. Firstly, the study provides an understanding of how the types of social media communication foster brand equity. Secondly, a more detailed analyses presented the direct and indirect effects of these two communication instruments on brand purchase intention.

The findings of the impact of social media communication on brand equity demonstrates that both firm-created and user-generated social media communication positively affect the consumers’ mindset and brand evaluation.

The positive influence of brand equity on brand purchase intention confirms previous findings on this matter (Cobb-Walgren et al., 1995; Keller and Lehmann, 2006), and verifies the theoretical model with the Polish sample.

Considering the increasing awareness of and growing expenditures on social media marketing (Winer, 2009), understanding the impact of social media communication on consumers’ brand purchase intention is of great relevance. The findings of this study show that the impact of firm-created social media communication on purchase intention is partially mediated by brand equity. Thus, it is recommended that companies encourage consumers to generate content (Cova and Pace, 2006; Mącik et al., 2013). However, the impact of user-generated social media communication on purchase intention is fully mediated by brand equity. Therefore, companies should leverage their consumer-based brand equity among social media users (Bruhn et al., 2012; Schivinski and Dabrowski, 2013b,a).

There are a few limitations of this study that can provide guidelines for future research. It is strongly recommended that all leading social networking sites (i.e. YouTube, Twitter, LinkedIn, MySpace) be analyzed to gain a broader understanding of the phenomena. Moreover, a Polish sample was used for this research, limiting the results and generalization of the findings. Social, economic, and cultural differences should be taken into account when repeating this study.

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