The moderating effect of customer engagement on the brand image – brand loyalty relationship

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Abstract

Customer engagement is one of today’s key research issues and can be defined as first, a psychological process of the customer that leads to the formation of loyalty. Second, a customer’s behavioral manifestation towards a brand or a firm, beyond purchase, resulting from motivational drivers and third, a psychological state that is characterized by a degree of vigor, dedication, absorption, and interaction. Customer engagement can take place in an offline or online environment whereas online customer engagement has gained increasing attention due to the rise of social networking sites. Especially social networking sites, namely Facebook give companies the chance to engage their customers and potential customers to greater interaction. As empirical studies of customer engagement behavior on social networking sites are still scarce, the contributions of this study are as follows: First, a conceptual model for the measurement of antecedents and consequences of customer engagement is introduced. Second, a set of measures to capture the antecedents, level of customer engagement and consequences is developed. Third, the moderating effect of customer engagement on the brand image – brand loyalty relationship is tested.

The model has been empirically tested by collecting data on a Facebook fan page of our students. First, a survey has been distributed to collect data about antecedents of customer engagement, second, by conducting an experiment on the fanpage, engagement behavior has been monitored to avoid single source bias within the data. To estimate the main effects as well as testing the hypotheses, partial least squares was used. The study provides insights in two aspects: First, a model for explaining customer engagement behavior on a Facebook fan page is derived. Second, the analysis shows a significant moderating impact of customer engagement on the brand image – brand loyalty relationship. Thus, the results can give managers insights, how engagement behavior leverages loyalty and therefore might have a measureable economic benefit for companies engaging on a social networking site.

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1. Introduction

Management practice as well as academia show a growing interest in understanding customer engagement. According to Vivek et al., customer engagement may be manifested cognitively, affectively, behaviorally or socially. The cognitive and affective elements of customer engagement incorporate the experiences and feelings of customers whereas the behavioral and social elements capture the participation by current and potential customers, both within and outside of the exchange situations (Vivek, S. D., Beatty, S. E. & Morgan, R. M. 2012). In other words, customer engagement shows up as actions or rather behavior. An engaged customer will perform certain actions that a disengaged customer will not. What engaged customers do largely depends on what companies allow and what technology enables. Some examples of actions that engaged customers can perform are: they provide ideas and suggestions, they do some of the work, they collaborate, co-create, they buy, they recommend a brand or product to family, friends or colleagues and they provide feedback (Iqbal, M. 2011).

Hollebeek (2011) generally defines customer engagement as the level of expression of an individual customer’s motivational, brand-related and context-dependent state of mind characterized by a degree of activation, identification and absorption in brand interactions. Another recent analysis about customer engagement is done by van Doorn et al. who suggest that customer engagement behaviors go beyond transactions and may be defined as a “a customers’ behavioral manifestations that have a brand or firm focus, beyond purchase, resulting from motivational drivers” (van Doorn, J., Lemon, K. N., Mittal, V., Nass, S., Pick, D., Pirner, P. & Verhoef, P. C. 2010).

Brodie et al. suggest that within interactive, dynamic business environments, customer engagement today represents a strategic imperative for generating enhanced corporate performance, including sales growth, superior competitive advantage and profitability (Brodie, R. J., Hollebeek, L. D., Juric, B, & Ilic, A. 2011). Customer engagement can take place online or offline. Offline engagement is the nature of engagement, but is qualitatively different from online engagement because online engagement offers ways to communicate and socialize which cannot be replaced by an offline medium. Offline engagement is mainly a one-way communication, such as word-of-mouth, reviews or referrals. In contrast to this, online media provides customers the opportunity not only to engage but also to discuss and interact in discussion forums, blogs or social media platforms as Facebook or Twitter. Thus, online customer engagement is “a cognitive and affective commitment to an active relationship with the brand as personified by the website or other computer-mediated entities designed to communicate brand value” (Mollen, A. & Wilson, H. 2010).

2. Conceptual framework and hypotheses

Possible motives for customer engagement include fun, gratification, self-fulfillment, an interest in a specific issue or activity and the enhancement of knowledge and abilities (Wittke, V. & Hanekop, H. 2011). Several researchers see the “M-A-O” model (motivation to engage, ability to engage and opportunity to engage) as the most relevant criteria for customer engagement activity (Gruen, T. W., Osmonbekov, T. & Czaplewski, A. J. 2006). We propose that:

H1. The higher the level of engagement motives, the higher the engagement activity.

Another influencing factor of customer engagement is the brand image. It reflects the direction and degree to which the brand is in a consumer’s mind (Park, C. W., Macinnis, D. J., Prieser, J., Eisingerich, A. & Iacobucci, D. 2010). Thus, we hypothesize that:

H2. The stronger the brand image, the higher the engagement activity.

Brand Image itself positively influences brand loyalty, thus we hypothesize:

H3. The stronger the brand image, the higher the brand loyalty.

Customer engagement can lead to successful marketing outcomes, such as loyalty, word-of-mouth, share of wallet and cross-selling (Vivek, S. D., Beatty, S. E. & Morgan, R. M. 2012). As conceptualized by Kumar et al.
customer engagement can have an impact on both customer value and on the reputation and recognition of the brand.

**H4.** The higher the level of engagement activity, the higher the brand loyalty.

We assume that if engagement activity is at a high level, this will consequently damp down the effect of brand image on brand loyalty. Thus, we hypothesize that:

**H5.** The higher the level of engagement activity, the lower will be the impact of brand image on brand loyalty.

The conceptual model is depicted in Fig. 1. To test our model we run a two-step estimation approach: First, according to Papagani, Hofacker, and Goldsmith (2011) we assumed that customer engagement can be divided into active and passive participation. Active participation can be described as commenting, sharing and posting posts/photos/videos, pressing the like-button and communicating and connecting with other users and the company whereas passive participation can be described as reading posts/comments, watching videos, following links, and watching profiles. This conceptualization has been empirically proved by Jahn and Kunz (2012). To prove this, we run an experiment. Second, we tested the framework by applying a partial least squares estimation approach to the data.

![Fig. 1. conceptual model](image)

**Empirical analysis**

We tested our framework by running an experiment on the Facebook fan page of the students of the Hamburg School of Business Administration (HSBA). Like this, the HSBA represents the brand, whereas the HSBA Bachelor students represent the customers. The experiment, which aims to observe the students’ online customer engagement was conducted on a Facebook fan page called “HSBA Studierende” which is run by HSBA student representatives. The total investigation includes a first survey (23rd – 31st October 2012) sent to all 816 HSBA Bachelor students, an experiment on the particular fan page (1st – 15th November 2012) and a second survey (20th – 30th November 2012). The second survey has merely been sent to students who have already responded to the first one so that a “before and after” comparison was possible.

In order to maintain an overview during the following investigation, it is distinguished between two groups: the students who both answered the two questionnaires and verifiably took part at the experiment on the Facebook fanpage, the experimental group and on the other hand a randomly selected sample of students not taking part in the experiment, the control group. These two groups are further divided into “E1”, “E2”, “C1” and “C2” in order to differentiate between the first and the second survey and the related results given by the particular group. The objective of the following analysis is to identify particular variables which motivate the
students to engage online for the HSBA. Secondly it is tested whether this engagement at the end leads to an increase of the HSBA’s brand loyalty.

3. Study 1: Experiment

We tested our first hypotheses in a field experiment. The stimulus selected for the main experiment was an idea competition on the student’s university facebook fan page. Task of the competition was to design a new slogan for the abbreviation HSBA. First, each student of HSBA received a questionnaire. In total, 201 students participated in the first survey resulting in a response rate of 24.63%. The sample consists of 53.2% female and 46.8% male students whereas most of them are between 20 (25.9%) and 21 (27.4%) years old. Second, students have been asked to take part in the experiment and 33 students were willing to take part and assigned to the experiment group. 33 students randomly selected from the initial sample were assigned to the control group. Third, after the experiment, participants evaluated again the questionnaire. The activity levels of both groups on facebook were monitored by counting the number of visits, comments, posts and likes of each participant.

To test for significant differences between the experiment and control group before and after the experiment, we first conducted a Kolomogorov-Smirnov test for normal distribution. As the two samples are not normally distributed, we run a Mann-Whitney-U test for the comparisons between groups and a Wilcoxon Signed Ranks test for the comparisons within groups (see Appendix A). As hypothesized, there is no significant difference regarding the level of customer engagement before the experiment. After the experiment, significant difference can be observed. Interestingly, the experiment group as well as the control group show significant differences in the level of brand loyalty after the experiment but no significant differences regarding brand loyalty between groups. This finding is in line with the findings of Jahn and Kunz (2012). It can be concluded that active engagement behaviour (comments, posts and likes) and passive engagement behaviour (mainly visits) both lead to a higher level of brand loyalty.

4. Study 2: Quantitative user survey

In order to show that there is an effect from customer engagement on brand loyalty and a moderating effect of customer engagement on the brand image – brand loyalty relationship, we invited the participants of our experiment to participate in a survey. We obtained 33 usable questionnaire per experiment and control group. We tested the proposed hypotheses using a structural equation model with partial least squares. The estimation results of the model are shown in Table 2. The fit statistics indicate an adequate fit of the proposed model

4.1. Measure development

Following the standard procedures for scale development, we based our scales on a review of literature. As we wished to account for the range of activities that encompass customer engagement activity on a fan page, we were only partially able to rely on existing scales and, therefore, also had to create new scales that would properly capture the intricacies of the customer engagement context. We measured engagement activity by monitoring the number of visits, comments, posts, and likes on the fan page, though overcoming any possible key informant bias. We measured the engagement motives based on the “M-A-O” model as the most relevant criteria for general engagement processes. It includes motivation to engage, ability to engage and opportunity to engage (Gruen, T. W., Osmonbekov, T. & Czaplewski, A. J. 2006). We measured brand image using a 3-item scale adapted from Park et al. (2010), which covered functional benefits, symbolic benefits, and experiential benefits brand image dimensions. Functional needs pertain to the intrinsic features possessed by the product when consumers attempt to solve purchasing decisions; symbolic needs are related to consumers' self-concept of whether product needs could satisfy self-esteem needs; and experiential needs address the issues of stimulation, sensory pleasure, or
novelty linked to products. We agree to the definition that brand loyalty is "a deeply held commitment to re-buy or re-patronise a preferred product or service consistently in the future, thereby causing repetitive same brand set purchasing, despite situational influences and marketing efforts having the potential to cause switching behaviour" (Oliver, R. 1999). Brand loyalty is likely to influence a customer’s willingness to stay, repurchase probability, and likelihood that they will recommend the brand (Johnson, M. D., Hermann, A. & Huber, F. 2006). Accordingly, brand loyalty is measured using a 3-item scale capturing recommendation behaviour, word-of-mouth and repurchase behaviour.

4.2. Data analysis and results

Table 1 presents the means, correlations and reliabilities of the constructs. We estimate the model using the partial least squares (PLS) estimation (Ringle, C., Wende, S., & Will, A. 2005) thereby deriving the results of the structural model reported in Table 4. The measurement model is specified in Appendix B.

| Latent variables (Constructs) | Mean (SD) | Comp. rel.* | 1. | 2. | 3. | 4. |
|-------------------------------|-----------|-------------|----|----|----|----|
| 1. Brand Loyalty              | 4.36 (.62) | 0.820       | 0.693<sup>b</sup> | 0.678 | 1.000 | 1.000 |
| 2. Brand Image                | 4.46 (.75) | 0.762       | 0.378<sup>c</sup> | 0.678 | 1.000 | 1.000 |
| 3. Engagement Level           | 3.86 (.67) | 1.000       | 0.244 | 0.100 | 0.313 | 0.625 |
| 4. Engagement Motives         | 4.77 (.45) | 0.911       | 0.367 | 0.251 | 0.313 | 0.625 |

* Composite reliabilities are Cronbach’s alpha scores; <sup>b</sup> AVE = average variance extracted (for each construct reported on the diagonal of the matrix); <sup>c</sup> Correlations are reported in the lower half of the matrix; N = 66.

Considering the simplicity of the model, the corrected r-squares between .379 and .504 show an appropriate fit to the data. Additionally, low variance inflation factors (< 1.5) indicate that collinearity is not a problem. Overall, the findings support our conceptualization of customer engagement behaviour. We tested the hypotheses based on the significance of the unstandardized regression coefficients in Table 2.

Table 2 Results of the structural model

| Effects                        | Engagement Activity | Brand Loyalty |
|--------------------------------|----------------------|---------------|
|                                | Path Coeff. | t-value | Path Coeff. | t-value |
| Main effects                   |            |         |            |         |
| Engagement motives             | H1         | 0.628   | 15.400 ***  |          |
| Brand Image                    | H2         | -0.058  | 0.939  n.s. |          |
| Engagement Activity            | H3         | 0.653   | 18.225 ***  |          |
| Interaction effect             | H4         | 0.190   | 3.970 ***  |          |
| Engagement Activity x Brand Image | H5        | -0.162  | 2.441 *    |          |

r-square (r-square<sub>adj</sub>) = .517 (.504)

Note: * p < .1, ** p < .05, *** p < .01, n.s. not significant, two-tailed significance levels; N = 66.

For the relationship between engagement motives and engagement activity as well as between engagement activity and brand loyalty, hypothesis 2 and 3 are supported. However, the influence of brand image on
engagement activity is not significant. Instead, the influence of brand image on brand loyalty is supported as well as the negative interaction effect of engagement activity on the brand image - brand loyalty relationship.

5. Managerial Implications

Several interesting insights and managerial indications can be derived from our findings and can help address management's need for gaining knowledge about the effects of customer engagement. First, active as well as passive engagement activity has an impact on brand loyalty. This finding is in line with Jahn and Kunz (2012), and it makes sense, considering that even visiting without any further engagement and e.g. only reading posts of other fans can lead to a higher brand loyalty. Second, we find that the brand image is negatively moderated by engagement activity. This means that a higher level of engagement can diminish the predominant link of brand image on brand loyalty. Thus, this result can give managers guidance how to allocate scarce marketing budgets. Instead of investing into costly image campaigns, managers should foster engagement opportunities for their customers. This might be achievable at lower cost.

6. Limitations and implications for further research

This paper contributes to the existing literature on customer engagement by providing insights into how engagement activity influences one central performance outcome, brand loyalty. The study provides novel insights in three respects. First, we conducted an experiment and observed no significant difference between active and passive engagement activity. Second, we show what managers can expect from engagement activity, and third, the interaction effect between engagement activity and brand image can give managers guidance how to facilitate marketing budget decisions. However, some limitations should be kept in mind. First, as this study was conducted with data from a survey and a student’s facebook fan page, additional empirical research on companies facebook fanpages is necessary to support the results presented in this paper and to test their generalizability. Second, it should be kept in mind that customer engagement is a dynamic process. Since we have only captured data within a short period of time, future research should focus on analyzing customer engagement from a longitudinal perspective with a longer timeframe.

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Appendix A. An example appendix

A.1. Comparison of groups before experiment (engagement activity)

|          | # visits | # comments | # posts | # likes |
|----------|----------|-----------|---------|--------|
|          | Mean     | SD        | Mean    | SD     | Mean | SD  |
| Group 1 (E) | .91      | 1.31      | .06     | .24    | .03  | .17 |
| Group 2 (C) | 1.33     | 1.59      | .21     | .60    | .00  | .00 |
| Asymp. Sign. | 1.397    | .242     | 1.810   | .183   | 1.000 | .321 |

Note: * p < .1, ** p < .05, *** p < .01, n.s. not significant; Mann–Whitney-U test; asymp. sig. (2-tailed).

A.2. Comparison of groups after experiment (engagement activity)

|          | # visits | # comments | # posts | # likes |
|----------|----------|-----------|---------|--------|
|          | Mean     | SD        | Mean    | SD     | Mean | SD  |
| Group 1 (E) | 1.64     | 1.17      | .24     | .61    | .09  | .29 |
| Group 2 (C) | 1.09     | 1.16      | .06     | .24    | .06  | .06 |
| Asymp. Sign. | 4.535    | .001***   | 1.272   | .287 n.s. | 0.211 | .648 n.s. |

Note: * p < .1, ** p < .05, *** p < .01, n.s. not significant; Mann–Whitney-U test; Asymp. sig. (2-tailed).

A.3. Differences of brand loyalty within groups

|          | E1 / E2    | C1 / C2    |
|----------|------------|------------|
|          | Z          | Asymp. Sig. | Z     | Asymp. Sig. |
| Recommend | -3.191     | .001**     | -2.046 | .041**     |
| WOM       | -3.649     | .000***    | -2.081 | .037**     |
| Master    | -2.924     | .003***    | -1.485 | .137 n.s.  |

Note: * p < .1, ** p < .05, *** p < .01, n.s. not significant; Wilcoxon Signed Ranks test, asymp. sig. (2-tailed).

A.4. Comparison of groups after experiment (brand loyalty)
Appendix B. Results of the measurement model

| Construct                  | R² (R²) | Loadings | t-value |
|----------------------------|---------|----------|---------|
| **Brand Loyalty** (Cronbach’s α: 0.819; AVE: .733) | .517 (0.504) |  |  |
| – WOM                      | .919 | 73.051 *** |  |
| – Recommendation           | .894 | 65.780 *** |  |
| – Master repurchase        | .753 | 20.774 *** |  |
| **Brand Image** (Cronbach’s α: 1.000; AVE: 1.000) |  |  |  |
| – Value                    | .845 | 30.828 *** |  |
| – Perceived overall quality | .777 | 20.418 *** |  |
| – Uniqueness               | .846 | 32.778 *** |  |
| **Engagement Activity**    | .379 (0.144) | 1.000 | 0.000 |
| – Index of # visits, # comments, # posts, # likes |  |  |  |
| **Engagement Motives** (Cronbach’s α: 0.711; AVE: .774) |  |  |  |
| **Hedonic Motives**        |  |  |  |
| – Fun                      | .887 | 58.608 *** |  |
| – Relaxation               | .824 | 31.226 *** |  |
| – Excitement               | .847 | 35.180 *** |  |
| – Knowledge                | .777 | 27.138 *** |  |
| **Self-Related Motives**   |  |  |  |
| – Learn                    | .846 | 33.780 *** |  |
| – Friends                  | .683 | 16.962 *** |  |
| – Contact                  | 819  | 39.931 *** |  |
| – Get recognized           | .597 | 10.290 *** |  |

Note: * p < .1, ** p < .05, *** p < .01, n.s. not significant, two-tailed significance levels; N = 66.