Building Brand Relationships Online:

A Comparison of Two Interactive Applications

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Abstract

Due to its potential for interactive communication, the Internet is considered a promising tool for relationship marketing. However, the effects of interactive communication on marketing effectiveness may depend on several factors related to each individual consumer, such as Internet experience. In this study, two of the most common applications for interactive communication − personalized web-sites and customer communities − were compared for their ability to develop consumer-brand relationships as measured by the Brand Relationship Quality (BRQ) framework of Fournier (1998). No main effects of the applications were observed. However, significant effects of Internet applications were found when Internet experience was included as a moderating variable. Specifically, it was found that personalized web-sites developed stronger consumer-brand relationships for respondents with extensive Internet experience than for respondents with limited Internet experience. Conversely, it was found that customer communities developed stronger relationships among respondents with limited Internet experience than among respondents with extensive Internet experience. Implications for marketing management and future research in this area are discussed.

Introduction

The interactivity and global connectivity of the Internet offers several interesting opportunities and applications for interactive home shopping (Alba, Lynch, Weitz, Janiszewski, Lutz, Sawyer and Wood, 1997) and on-line marketing (Hoffman and Novak, 1996; Deighton, 1996; Bezjian-Avery, Calder and Iacobucci, 1998; Wind and Rangaswamy, 2001). The Internet is hypothesized to lead to increased efficiency, e.g. in consumer information search costs (Alba et al. 1997; Lynch and Ariely, 2000), and increased effectiveness, through different applications which are designed to support on-line customers and assist in building customer loyalty. Focusing on the latter, several researchers consider the Internet to be a well-suited medium for building consumer-brand relationships (Armstrong and Hagel, 1996; Pepper and Rogers, 1997; Hagel, 1999; Scultz and Bailey, 2000). However, very few attempts have been made to investigate how different interactive Internet tools may develop or enhance such relationships. This lack of research is surprising when considering the vast resources invested into brand-building activities by companies on the Internet worldwide.

To gain new insights in this important area, there is a strong need for studying the effects of various Internet-based applications on consumer-brand relationships. In this study, two of the most common interactive Internet-applications – personalized web-sites and web-sites with customer communities – were compared experimentally for their ability to develop consumer-brand relationships. The Brand Relationship Quality framework (Fournier, 1998) was used to test potential effects. Moreover, Internet experience was included as a moderator variable, because this variable has been shown to affect both

consumer perception of web-sites (Bruner and Kumar, 2000) and consumer behavior in electronic markets (Liang and Huang, 1998).

In the following, interactivity is briefly defined within an Internet context and two dominant interactive Internet-applications (personalization and customer community) are presented and contrasted. Second, the potential moderating effect of Internet experience is discussed. Furthermore, the concept of brand relationship is briefly presented. Finally, we report on the methodology and results of the experimental comparison of the two applications and discuss implications for marketing management and future research.

Interactivity on the Internet

Both scholars and practitioners of marketing seem to be quite unanimous in their view of interactivity as a crucial element of successful online marketing (Deighton, 1996; Hoffman and Novak, 1996; Pepper and Rogers, 1997; Bezjian-Avery et al., 1998). Still, there seems to be a less of a consensus on the denotation and intention (Zaltman, Pinson and Angelmar, 1973) of the concept of interactivity, and the conceptual meaning of interactivity in the context of marketing communication on the Internet. Whereas researchers like Rogers (1986, p.4) and Steuer (1992, p.84) primarily focus on interactivity as an individual's communication *with a medium*, most marketing scholars - such as Deighton (1996, p.151) and Bezjian-Avery et al. (1998, p.23) − also include dialogue between individuals - *through a medium* - in their understanding of interactivity. Hoffman and Novak (1996) have labeled these two forms of interactivity as *machine*-interactivity and *person*-interactivity, respectively. This distinction can be instrumental both in defining interactivity and in categorizing the different Internet-based marketing applications. The position taken here is that a definition of interactive

marketing should embrace both machine- and person interactivity. Internet-based, interactive marketing applications enable consumers and firms to provide and interactively access hypermedia content (machine interactivity) and communicate through the medium (person interactivity) (Hoffman and Novak, 1996). Further, a definition of interactive marketing should limit the denotation of the concept to a market communication context through addressing the features of this on-going dialogue between the consumer and the brand. Interactive marketing iterates between the consumers and the firm, eliciting information from both parties and attempting to align goals and interests (Bezjian-Avery et al, 1998).

Based on these lines of arguments, we propose the following definition of interactive marketing, grounded on a definition set forth by Bezjian-Avery et al. (1998): "*Interactive marketing is an iterative dialogue where individual consumers' needs and desires are uncovered, modified and satisfied to the degree possible*".

Interactive applications on the Internet

The present definition of interactivity will include well-known forms of interactive marketing such as traditional direct marketing and personal sales, as well as the more recent online marketing applications.

In this study we selected and compared two Internet applications, which are examples of machine- and person interactivity, respectively: personalized web-sites (machine interactivity) and customer communities (person interactivity). Personalized web sites and customer communities (such as bulletin boards) are among the most common

application on brand web-sites today and are both hypothesized to be promising tools for building brand loyalty and strong consumer-brand relationships (Holland and Baker, 2001; Armstrong and Hagel, 1996; Pepper and Rogers, 1997).

Personalized web-sites. Interactive marketing includes the possibility of personalizing information and content to each customer's unique preferences and needs (Rohm and Haugtvedt, 1999; Bezjian-Avery et al., 1998). Personalized web-sites are simply dynamic web-sites where each consumer can get personally tailored information through user profiles and identification. User profiles are information about individual interests, preferences and demographics, which are stored in a database. These data can be obtained through the company's existing consumer databases, by asking the consumer for profile data on the web-site, or by logging consumer behavior on the net. Identifying the customers when they enter the web-sites is easily managed through log-on procedures or by using cookies. Through identifying each customer and matching the identity to the existing user profile, several personalization applications are made possible. Among these are rule-based matching, matching agents and collaborating filtering. While rule-based matching and matching agents simply link consumer profiles with appropriate products, information and content, collaborating filtering goes one step further: It personalizes content based on the profile of other consumers with similar profiles. For instance, http://www.amazon.com/ recommends books on the basis of previous purchases of other consumers with a similar profile. In this study we based the personalized services on personal profiles of the individual customer.

Customer Communities. A community is basically a web-site with possibilities of communication between multiple parties. This dialogue can proceed in real-time - called

chatting - or asynchronously by members posting messages on a bulletin board. The so-called "Chat-rooms" have become immensely popular on the Internet, but these are seldom used for promoting commercial products. Bulletin boards, however, are found on more and more company- and brand web-sites throughout the world (see e.g. http://www.palm.com/community/ or http://thorntree.lonelyplanet.com/). These boards are usually categorized according to topics, and consumers can search for postings relevant to his or her interests. The web-host can choose whether they allow messages to be posted anonymously or if it is compulsory for consumers to reveal their real, registered log-in name. Communities may also differ in degree of openness, for example, whether reading and posting messages are allowed for non-members. However, bulletin boards are usually open to the general public, at least for reading messages. Finally, the company must decide if communication should be limited to customers only, or if the company (brand) actively should participate in posting messages and answering questions. In this study we focus on customer community as a publicly accessible bulletin board where brand representatives can participate in answering postings.

Internet experience

The ability to take advantage of various relationship-building applications on the Internet will depend on several individual and situational factors. Customer experience is an important factor in understanding consumer information processing (Alba and Hutchinson, 1987). According to information system (IS) researchers, technology experience is a strong predictor of both attitudes and behavior towards the technology (Thompson and Higgins, 1994). Several studies have found that experts and novices use IS differently (DeLone, 1988; Kraemer, Danzinger, Dunkle, and King, 1993). Within the context of marketing, researchers have devoted considerable time to studies of product

experience, product familiarity and consumer expertise and the effect of these concepts on information search activities, attitudes and behavior (Brucks, 1985, Alba and Hutchinson, 1987). So far, only a limited amount of research has been focused on Internet experience and its impact on attitudes and choice in an online environment.

Unlike the traditional advertising media, such as TV or print, we cannot assume the majority of consumers to be familiar and experienced with the Internet. Therefore, media experience probably plays a more important role in advertising effectiveness online than offline (Bruner and Kumar, 2000). Because the Internet is still in its infancy, we would expect a large variation in Internet experience among consumers in the general population, and this variable may thus play a central role in marketing effectiveness. The few studies that have been conducted on Internet experience, have concluded that this is an essential variable when trying to understand people's attitudes and behavior on the net (Bruner and Kumar, 2000; Takacs, Reed, Wells and Dombrowski, 1999). For example, Bruner and Kumar (2000) found that when consumer experience with the Internet increased, attitudes toward web-sites tended to be more favorable in general. This could indicate that consumers with extensive Internet experience would more easily develop online brand relationships then consumers with less experience.

Consumer-Brand Relationships

The governing framework for measuring and conceptualizing long-term, committed consumer-brand relationships has been brand loyalty (Dick and Basu, 1994; Baldinger and Rubinson, 1996; Oliver, 1997). By introducing the concept of Brand Relationship Quality (BRQ), Fournier (1998) accentuated the importance and conceptual richness of the emotional and affect-laden ties that exist between consumers and their brands.

Fournier (1998) argues that brand loyalty research has stagnated of late and that the majority of insights and contributions fail to address why and in what forms consumers seek and value relationships with brands. Brand Relationship Quality represents a refreshing act of clearing ground in loyalty research, and we feel it would be fruitful to apply and extend the concept, not the least in an on-line setting where brand relationships might be developed and strengthened both intensively and cost-efficiently. The BRQ-concept consists of six dimensions – each capturing unique aspects of the strength and richness of consumer-brand relationships. Based on Fournier (1998), we have summarized the content of the BRQ-dimensions below.

1) Love/passion refers to the intensity and depth of the emotional ties between the consumer and the brand. This dimension of BRQ is denoted by a strong attraction and affection toward the brand, and a feeling of fascination, exclusivity and dependency in the relationship.

2) Self-connection reflects the degree to which the brand delivers on important identity concerns, tasks, or themes, thereby expressing a significant aspect of the consumer's self.

3) Personal commitment captures the strength of attitudinal stability towards a relationship. Commitment is a well-developed concept in marketing and can be seen as the intention of – and dedication to – future continuity of the relationship.

4) Intimacy refers to the degree of closeness, mutual understanding and openness between relationship partners. According to social psychology, self-disclosure, listening and caring are salient aspects of intimate relationships.

5) Partner quality represents consumer evaluation of the brand's performance in the relationship. Essential aspects of partner quality are trust, reliability and expectation fulfillment.

6) Behavioral Interdependence refers to the degree to which the actions and reactions of relationship partners are intertwined. The pattern of interaction between the partners, the strength of the impact of each occurrence and the scope of activities are important determinants of this BRQ-dimension.

Despite the interesting and rich conceptual content of the BRQ-framework, few empirical applications of the framework are found in the literature. To our knowledge, no previous study has used this framework in examining customer-brand relationships on the Internet.

Hypotheses

The study reported here focused on the role of Internet experience as a moderator of the relationship-building effects of two interactive marketing applications: personalized web sites and customer communities. Thus, our study builds on the conceptual model of Holland and Baker (2001), in which personal factors (such as experience, etc.) influence the relative effect of web-personalization and customer communities in developing brand loyalty. In line with Holland and Baker, Hagel (1999), Pepper and Rogers (1997) and others, we expect both applications to be successful in building strong consumer-brand relationships. However, we also expect that the relative effectiveness of customer communities and personalized web-sites will depend on consumers' level of Internet experience.

First, consumers with low rather than high Internet experience should be less at ease with using the Internet and with booking on-line. One strategy for reducing this uncertainty of the less experienced users could be observing and participating in on-line word-of-mouth communication posted at customer communities. Novices on the Internet are probably more prone to search out and exploit such information than experts for two main reasons. First, novices (as opposed to experts) are more likely to find new information in customer communities. Communities typically contain expert advice and comments from experienced users. This would be old information to many experts. This line of reasoning is supported by findings in research on personal influence and word-of-mouth communication, showing that novices are more susceptible to such information sources (e.g., Cialdini, 1993). Also supportive of this explanation is the finding within persuasion research that novices are more influenced by peripheral cues than experts (e.g., Petty and Cacioppo, 1981). The comments or advice of spokespersons/peers in communities may function as peripheral cues in our context.

For more experienced Internet users, who experience less risk and uncertainty when interacting with, or on, an Internet site, such risk-reducing-, or information search motives may be less prominent. These users may not find much useful information on a customer community site. Rather, experienced users would be interested in making the search for information and the booking process as efficient and expedient as possible. The presence of relationship memory and the personalization of information and bookings should make present and future bookings swift and easy. Also, machine-interactivity – such as web-personalization – may demand a higher level of technological

understanding and experience from the users than person-interactivity and thus could be perceived as being more useful to experienced users.

Although speculative at this point, we might also expect experienced users – rather than less experienced users – to become more easily seduced by attributes like technological elegance and degree of innovation on a site, or simply find machine-interaction more preferable than person-interaction. Khaslavsky and Shedroff (1999) provide anecdotal evidence as to how technologies might seduce users through a process of enticement, relationship and fulfillment. By personalizing content, fulfilling promises and connecting to the consumers' needs and personal goals, personalized web-sites might contain an element of seduction. Such a technological seduction, rather than personal persuasion, may appeal more to experienced Internet users than to less experienced users, who are more concerned with human contact, with alleviating uncertainty and being "cared for" by the brand on-line. Thus we propose the following hypotheses:

Hypothesis 1: *a) Personalized web-sites will have a stronger effect on BRQ (dimensions) for users with high, rather than low Internet experience*

b) Customer communities will have a stronger effect on BRQ (dimensions) for users with low, rather than high Internet experience.

There are few theoretical or empirical findings suggesting that either application is overall more successful in strengthening BRQ than the other. The BRQ construct consists of several distinct sub-dimensions, and should not be conceptually or empirically treated as a con-generic, higher-order model (Fournier, 1994). Consequently, one may propose hypotheses on differential effects of the two applications on each of the

various sub-dimensions of BRQ. Theoretical arguments for why, and in what way, each application may strengthen each of the BRQ-dimensions are easily developed. However, transforming these arguments into specific hypotheses on *effect differences between the two applications* is difficult. Take for instance intimacy: According to social psychologists, some of the most prominent aspects of intimate relationships are mutual understanding, self-disclosure and caring between relationship partners, as well as abilities of conflict resolution (Hinde, 1979; Waring et al., 1980; Chelune, Robinson and Kommor, 1984; Pearlman and Fehr, 1987; Stern, 1997). Looking at the two interactive applications, personalized web-sites appear to be highly applicable tools for building consumer-brand intimacy. Personalized web-sites offer the consumers a customized service in exchange for personal information, and will thus include a fair amount of self-disclosure on the consumer's behalf. Through greeting the customers by name, responding to customer feedback, giving them access to prior relationship data, and personalizing information and services in accordance with their personal profile, personalized web-sites may also be perceived as caring, understanding and sincerely interested in the well-being of each customer. Executed in a non-intrusive manner, this can help build consumer-brand intimacy. However, several authors also point to the how customer communities may help build intimacy. Merely by allowing uncensored customer discussions on the brand web-site, the brand signals openness, a sincere interest in customer feedback, and that it has nothing to hide from its customers (Figallo, 1998; Sterne, 1996). Further, customer communities are believed to be highly appropriate means for accommodating and handling customer complains (Sterne, 1996). Abilities of such conflict resolution are important qualities of intimate relationships (Stern, 1997).

Each interactive application may improve different facets of each BRQ-dimension through different qualities and attributes. Deciding on the relative impact of these qualities is difficult at this stage. In sum, the existing body of research suggests that no main effect of internet-application should be expected.

Hypothesis 2: *There are no significant differences in the effects of personalized web-sites and brand communities on BRQ (dimensions).*

Methodology

A factorial 2x2 between-subjects design was used to test the combined effect of interactive application and Internet experience on brand relationship quality (BRQ). Two web-sites for two fictitious brands were developed especially for this study.

Products

To avoid mono-operationalization, and thus strengthening external validity, two different products (airline ticket and restaurant meal) were used. Tourism products were chosen due to the widespread existence of tourism web-sites on the Internet. The two experimental treatments – personalized web-site and web-site with customer community – were thus designed as either an airline site or a restaurant chain site. Both brands, The Blue@Gold (restaurant) and The Blue@Gold Air (airline), were fictitious. The reason for using a "virtual brand" was to control for existing relationships between the respondents and the brand and to avoid possible uncontrollable interactions between the respondents and the brand during the experimental period.

Procedure

The experiment was framed as a test of a new product and the respondents were given incentives to participate by winning prizes. The real purpose of the experiment was revealed to the respondents after the experiment was finished. Apart from the briefing and debriefing of the respondents, which were executed in the "physical world", the whole experiment – including measurements – was carried out online.

Together with the briefing, respondents were given an envelope that contained information about the experiment, an assigned web-address, username, password, and a credit card with which they could pay for their purchased brand service. Each respondent could log on to the assigned site whenever and from whatever location they wanted, but they were instructed to visit the site at least once a day. To gain access to the web-site, respondents had to register their name and e-mail address the first time they visited the web-site. The respondents were further instructed to book either an airline ticket or a restaurant visit on the first day of the experiment and were encouraged to familiarize themselves with the site and the brand.

Insert figure 1 here

To book an airline ticket or a restaurant visit, the respondents in the personalization groups had to register their preferences for predefined dimensions of personalization. Four dimensions for personalization were presented both for the Blue & Gold Air and for The Blue & Gold (see table 1). Dimensions for personalization were not presented to the respondents with access to customer community.

Insert table 1 here

The experiment lasted for 10 days. As can be seen from figure 1, BRQ was measured on three occasions. The first measurement was conducted after the reservation, the second measurement after the first event, while the third measurement was conducted at the end of the experiment, after event 4. Four different messages, or events, were sent by email to the respondents during the experiment to increase the activity, involvement and realism in the experiment (see figure 1). The first message had a negative connotation. Respondents were informed that their scheduled departure or restaurant booking was delayed. Such a negative event was used to induce interaction between the customer and the brand, and to avoid possible ceiling-effects in questionnaire responses. The three latter messages were either positive or neutral. In the second message, the brand offered a compensation for the delay, whereas the third and fourth messages contained valuable information about the upcoming trip or restaurant visit. The four messages for The Blue & Gold Air and for The Blue & Gold is presented in table 2. As can be seen, the last part of message 2 and message 3 is personalized according to preferences revealed by the customers earlier in the experiment for the groups receiving personalized services. This part of message 2 and 3 were not sent to the groups with access to customer community.

Insert table 2 here

Sample

In order to increase the external validity of the study and the variance in the subjects' Internet experience, two different sample-frames were selected. The first sample (N=62) was drawn from several classes of tourism management at a regional Scandinavian

university, the second sample (N=61) from employees at travel agencies and hotels. Hence, the total sample consisted of 123 subjects from two different but internally homogenous sub-samples. The subjects' knowledge and interest in tourism products and services was expected to increase their interest in the products in question and thus enhance their overall involvement in the experiment.

Operationalization

Type of interactive web-site

The design and navigation on each of the web-sites were held constant between the two different interactive applications. Basically, the two sites were identical, with the following exceptions:

The web-sites with customer community contained an element in the navigation pane labeled "Discussions", guiding the respondents to a bulletin board, which contained existing postings among the consumers themselves as well as those between the consumers and the brand. Of course, the respondents also had the opportunity of posting new messages on the forum. The personalized web-sites did not have such a customer community.

What the personalized web-site did have, was an element in the navigation pane labeled "My Blue@Gold". By clicking on the element, respondents were guided into a personalized web page, where they were greeted by name, had a complete overview of the relationship history and their registered preferences as well as a full overview of the messages that were sent to the respondents during the experiment. When booking either the flight or the restaurant visit on the first day of the experiment, respondents were also

asked about their personal preferences on a given set of attributes for the product/service in question (see table 1). Both the service itself and the compensation offered later in the experiment were personalized based on each respondent's preferences. The respondents assigned to the web-sites with customer communities did not receive such personalized services.

The content of the web-sites was also held constant between the two different products, at least with regard to design, the number of web pages and amount of information (the content of the information displayed was, of course, adjusted to the nature of the product). The opening web-site for both The Blue & Gold Air and The Blue & Gold is presented in figure 2. The presented web-sites are for the community groups. For the groups receiving personalized services the button in the navigation pane labeled "Discussion" was replaced by a button labeled "My Blue & Gold", se Figure 2.

Insert figure 2 here

Internet experience

Internet experience was measured by a single item referring to the respondents' subjective evaluation: "I feel that I am an experienced user of the Internet". The response was measured on a seven point Likert-scale with endpoints "strongly disagree" and "strongly agree". The variable was dichotomized according to the median into low Internet experience (1 - 4) and high Internet experience (5 - 7).

Dependent variables

No measures or validated scales of BRQ are offered in the literature, and the development and conceptualizations of the BRQ construct in both Fournier (1998) and Fournier and Yao (1997) are qualitatively derived. As a consequence, our only source of information about the BRQ scale development, was Fournier's 1994 dissertation. The majority of items was thus adopted from Fournier (1994), although some indicators were replaced or slightly altered on the basis of Fournier's own recommendations for improvements of the scale (1994, p.193)

Our BRQ measurement scale contained no indicators for the sixth BRQ-dimension, Behavioral Interdependence. The measures of this dimension implicitly assume a relationship history between the consumer and the brand (e.g. "I feel like something is missing when I haven't used the brand for a while") (Fournier, 1994). Given that the products and brands in this study were fictitious − and the experiment was framed as a test of new products − no such prior relationship history existed, and this dimension was removed from the measure. Brand Relationship Quality (BRQ) was thus measured through 33 indicators initially designed to represent five different BRQ dimensions (Intimacy, Self-concept Connection, Partner Quality, Personal Commitment and Love/Passion) (Fournier, 1994). Since BRQ was measured on three different occasions, there was a need to find a measurement model that was stabile over time, and yet fit the data well at all three points of measurement. In order to find such an overall measurement model, a confirmatory factor analysis − testing the factor structure we expected from the literature − was run on the data from all three measurements jointly. This analysis was performed in LISREL 8.30. Indicators that did not fit the measurement model were then removed in order to achieve a satisfactory goodness-of-fit. The removal

of indicators was based on inspection of factor loadings and modification indices. Interestingly, all items of personal commitment had to be removed from the BRQ measurement due to poor discriminant validity with the items of the four remaining BRQ dimensions (with love/passion in particular). The final measurement model – containing 16 indicators – received satisfactory fit (RMSEA=.070, CFI=.97)[1]. All constructs had average variance extracted values above 0.5, as recommended by Bagozzi and Yi (1988). Furthermore, convergent and discriminant validity was tested and found acceptable according to the recommended approach by Anderson and Gerbing (1988). The final measurement model is displayed in Table 3.

Insert table 3 here

Note that the factor analyses performed above were based on a somewhat larger sample (N=181) than the other analyses (N=123). This was because three groups of respondents were originally recruited for investigation of responses to three different web-sites (the third web-site was a static site). The data collected in the third group was used for a different purpose. However, because these subjects also responded to the BRQ measures three times in a manner similar to our two experimental groups, their responses to the BRQ-scale were included in the factor analyses.

Results

MANOVA was used to test the effects of the two interactive applications on each of the four BRQ dimensions. Separate analyses were performed for the three measurements of BRQ.

Test of H1a and H1b

Hypothesis 1 addressed the potential interactive effect between Internet application and respondent Internet experience. Interaction effects are reported in Table 4. The majority of interactions are significant, and these effects increase as relationships developed over time.

Insert table 4 here

On the first point of measurement, MANOVA analysis revealed a significant interaction effect for self concept connection ($F_{1,123}$=7.30, p<.01) and passion ($F_{1,123}$=4.00, p<.05). These two interaction effects were both in the same direction. For web-sites with customer communities, subjects with less Internet experience had higher ratings on self-concept connection and passion than highly experienced subjects. Conversely – for personalized web-sites – subjects with extensive Internet experience had higher ratings on these two BRQ-dimensions than less experienced consumers. For the second BRQ measurement, conducted immediately after the negative event, significant interactions were observed for the following BRQ-dimensions: intimacy ($F_{1,116}$=4.49, p<.05), self-concept connection ($F_{1,116}$=7.98, p<.01), partner quality ($F_{1,116}$=8.87, p<.01) and passion ($F_{1,116}$=4.74, p<.05). For the third and last measurement the interaction effects were also consistent with the previous observations: intimacy ($F_{1,102}$=5.14, p<.05), self-concept connection ($F_{1,102}$=8.48, p<.01), partner quality ($F_{1,102}$=3.95, p<.05) and passion ($F_{1,102}$=8.05, p<.01). The mean differences on measurement 3 also revealed that the interaction effect of application and Internet experience became stronger as the experiment continued and brand relationships were allowed to grow. With the exception

of partner quality, the effect on each BRQ dimension increased from measurement 1 to measurement 2 and from measurement 2 to 3.

In order to display the interaction-effects in a lucid and simple manner, Figure 3 combines the four BRQ-dimensions into one single, higher order BRQ-construct. The figure illustrates the effects on measurement 3. However, the tendency in the data is consistent across observations as well as across the BRQ dimensions: the web-sites with brand communities appear to strengthen BRQ to a larger extent than personalized web-sites for respondents with less Internet experience, whereas personalized web-sites have a stronger effect when respondents have extensive Internet experience.

Insert figure 3 here

Test of H2

Hypothesis 2 concerned the possible differences between personalized web-sites and customer communities in forming relationships between brands and consumers. The MANOVA analyses revealed virtually no significant main effect of Internet application. The only significant effect that occurred was for the Intimacy dimension on the second measurement of BRQ, where respondents using the personalized web-site had a significant higher score on intimacy ($F_{1,116}=4.765$, p<.05), than respondents using the web-site with brand community. Importantly, this effect occurred after the negative message had been sent out, whereas the effect disappeared later on when compensation was offered and positive messages were communicated. Though speculative at this point, this finding could indicate that users of personalized web services are less vulnerable to partner mishaps than users of non-personalized sites. In sum, H2 is largely supported.

Discussion

No main effect of Internet application on BRQ was found in this study. The type of interactive application only mattered when experienced users of the Internet were compared to the less experienced. Whereas web-sites with customer communities (person-interactivity) were more effective than personalized web-sites (machine-interactivity) in building BRQ when consumer Internet experience was low, personalized web-sites were more effective than the customer community sites when Internet experience was high.

The finding that, customer communities were more effective in building brand relationships for consumers with low rather than high Internet experience may appear surprising. Originally, communities evolved as non-commercial, spontaneous and social events (Rheingold, 1993), where the participants were highly proficient users - typically discussing technological-oriented issues on news-groups or bulletin boards. Moreover, the social – and even communal – functions of customer communities are often accentuated by marketing researchers (e.g. Mathwick, 2002; Wellman and Gulia, 1999), giving nurture to the notion of online customer community as a viable and legitimate social construct. However, communities may serve many functions, both social and psychological. For example, Mathwick (2002) recently presented a typology of four "online relationship orientations" based on cluster analysis of various relationship motives. The different profiles reflect both social and psychological motives for online interactions on communities. Interestingly, the second largest cluster, the "Lurkers", scored low on all motives and generally showed a passive pattern of behavior. These consumers are "free-riders" in the sense that they would read postings, yet make no

active contributions on the forum. However, the "lurkers" may still gain considerable value from a community. This could be psychological benefits such as perceived confidence in obtained information and perceived efficiency of information search. Thus, an on-line community may also be perceived as a psychological construct, focusing on the value of new information and information source effects for the community users. Notably, we are not saying that customer communities cannot serve as effective relationship building tools also for highly experienced users. We merely suggest that different social *and psychological* mechanisms could be at work depending on the level of user experience and the general purpose of visiting a community. The present study focused primarily on this psychological side of communities. In this study, the number of new postings from the experimental participants was fairly low, indicating that the social functions of the community were less important. The explicit instructions to book a ticket or a restaurant reservation further induced participants to consider the psychological benefits of the community. The observation that consumers with less Internet experience developed stronger loyalty from communities than personalized web-sites, points to relevance of the psychological effects of community information. We have suggested several explanations for this finding. Generally, novice users are more influenced by peripheral cues and third party information sources than experienced users, indicating that customer communities are more effective in building brand relationships for users with low – rather than high – Internet experience. Third-person information is particularly important within the tourism industry. Thus, our choice of products (airline and restaurant) may have accentuated the effect of customer communities in our sample. Nevertheless, the empirical results of this study indicate that psychological benefits of communities can be highly relevant for the development of brand relationships among consumers with less Internet experience.

Turning to the partial effects of Internet experience and web-personalization on BRQ, our hypothesis H1b is also supported. The personalized sites were found to be more effective in building brand relationships for highly experienced, rather than less experienced, Internet users. We suggest two primary explanations for this observation. First, frequent users of the Internet probably put more emphasis on efficiency- and ease of use issues than less frequent users. Experienced users are more likely to be impatient, more efficiency-focused and more focused on making future bookings swift and easy than the more novice users are. Second, personalized web-sites – being slightly more advanced applications than bulletin boards – may demand a certain level of Internet proficiency and user-experience in order to be deemed useful by the consumer. Findings in the IS-literature points to the fact that experience influences whether the user is enabled to make use of the technology, which in turn influences perceived usefulness, enjoyment with, and intention to use the technology (Venkatesh and Davis, 1996; Venkatesh, 2000).

In addition, we suggested that machine-interactive applications, such as personalized web-sites, might create a seductive-like experience for highly experienced users, by integrating functionality with a visual and interactive design. By seduction we do not necessarily mean that the consumer enters and collaborates in building a new social consensus with the brand (as defined by Deighton and Grayson, 1995), but rather a form of persuasion that is highly personal, intimate, and focused. Highly experienced users are probably more prone to be "seduced" by this kind of machine-interactivity than less experienced users. Also, the concept of flow may offer some potential explanations for the greater effect of personalization among the highly experienced Internet users. Flow

refs to experiences that are "intrinsically enjoyable" and that "completely involves the actor with his activity" (Novak, Hoffman, and Yung, p. 4). Notably, Novak et al. found that skill and perceived control were important determinants of flow on the Internet. Though speculative at this point, we believe that personalization may induce moderate levels of flow for experienced users. Personalized web-sites connect directly to the consumers needs and goals and personalize content in an efficient and functional way, through which experienced consumers may obtain a sense of control. Though participants in our study probably experienced rather low levels of flow in general, there may have been important variation at lower levels, with highly skilled consumers experiencing higher levels of flow than less skilled consumers. The seduction − and flow-inducing capacity of personalization is a legitimate issue for future research.

Managerial implications

The results from this experiment call renewed attention to the importance of knowing the on-line experience and proficiency of customers. When Internet experience was not taken into account, we found practically no difference in the interactive applications' effect on brand relationship quality. However, when respondents were split according to their Internet experience, the two interactive applications proved to have a significantly different impact on the development of consumer-brand relationships. The findings suggest that companies should segment on-line users according to their Internet proficiency. It should be an easy task for any brand to make several versions of their web-site, split according to user background variables. The research findings indicate that for highly experienced Internet users, one should apply personalized applications − or other machine interactive technologies − to build customer-brand relationships, rather than communities. Experienced users are probably more motivated and able to process

the technical and information details of web-sites. The stronger effect of customer communities for novices on the Internet suggests that communities should be used to form relationships with this group. However, according to the discussion of the community findings above, one should interpret these results with caution. The execution of the customer community in this study probably relates mainly to psychological effects of community information – and not necessarily the social and communal functions related to the exchange of such information. One option for managers would be to include both personalization and a community on their sites. At first glance this seems like a safe compromise. However, this could turn out wrong, especially for novices. Though consumers with less Internet experience scored significantly lower on BRQ when the site contained personalization rather than a community, we cannot conclude that a site with *both* personalization and a community would be equally efficient as a site containing only a community. In fact, novices could perceive a combined site as more complex, and thus less useful, than sites with only a community. This is also an issue for future research.

Finally, the findings reported in this study would have been more useful to managers if the explanations for these effects were tested directly. Only an explicit test of the psychological (and social) mechanisms underlying the differences in effect of the interactive applications between Internet novices and experts would provide detailed managerial guidelines for brand web-site development and segmentation.

Limitations and directions of Future Research

Studying the development of consumers' relationships to fictitious brands in an experimental setting necessarily entails certain limitations to the external validity of the

findings. However, the use of fictitious brands was imperative in order to preserve the internal validity in this study, especially because of the longitudinal nature of the design. Also, allowing respondents to log onto the site whenever and from whatever location they wanted increased the external validity of the study compared to other experimental settings. The context of the respondent's encounters with the brand online was more realistic than it would have been in a common laboratory setting.

Another important issue regarding the validity of the study is the duration of the experiment. Ten days is a short period for developing consumer-brand relationships. However, the decision of making this a 10 days experiment was a trade-off between preserving the internal validity and minimizing respondents tediousness on the one side, and accommodating external validity issues on the other. We would argue that the timeframe was sufficient for developing brand relationships, especially since the interaction between the consumer and the brand was quite intense and frequent in the experimental period. The amount of interaction that took place between the consumers and the brand in the experiment could equal several months of interaction in a real-life setting. To further increase the generalizability of the findings, future research should study BRQ effects of different interactive applications on web-sites for real brands. This implies that more mature relationships should be investigated. Other effects could be observed in such a context. Also, other interactive Internet applications should be tested. For example, dynamic personalization could be more effective for novices than the static type of personalization tested in this experiment.

The dimensional analysis of BRQ in this study also has some implications for future research. Interestingly, all items of personal commitment had to be removed from the

BRQ measurement due to poor discriminant validity with the items of the remaining BRQ dimensions, and with the love/passion-facet in particular. This finding raises the question of whether commitment should be removed from the BRQ measure. For example, one could argue that the other BRQ-dimensions, such as intimacy and partner quality are determinants of commitment. Findings in social psychology as well as in marketing (Morgan and Hunt, 1994; Garbarino and Johnson, 1999) suggest that concepts such as satisfaction, intimacy and trust are causal determinants of commitment and thus highly correlated. More research is warranted on this issue.

Finally, the observed impact of Internet experience observed in this study points to interesting avenues for future research. First, future studies should apply multi-item measures of Internet experience, tapping both perceived and actual Internet usage, and perhaps different forms of usage. Different kinds of experience may yield different effects. Knowledge about such differences would help web managers segment their target market and tailor Internet applications accordingly. The main finding in this study was that Internet experience moderates the relative ability of customer communities and personalized web-sites to develop brand relationships. Though several explanations of this effect have been suggested, no explicit tests of explanations were performed in this study. This is an important issue for future research.

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[1] In addition, we tested the overall measurement model revealed in Table 1 on each of the three different BRQ-measurements, through confirmatory factor analysis. This resulted in the following goodness-of-fit indices: Measurement 1: RMSEA= .085, CFI=.95, measurement 2: RMSEA=.091, CFI=.95, measurement 3: RMSEA= .109, CFI=.94. With the possible exception of measurement 3, the model fit seems satisfactory considering the low sample sizes.

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Figure 1: Experiment structure
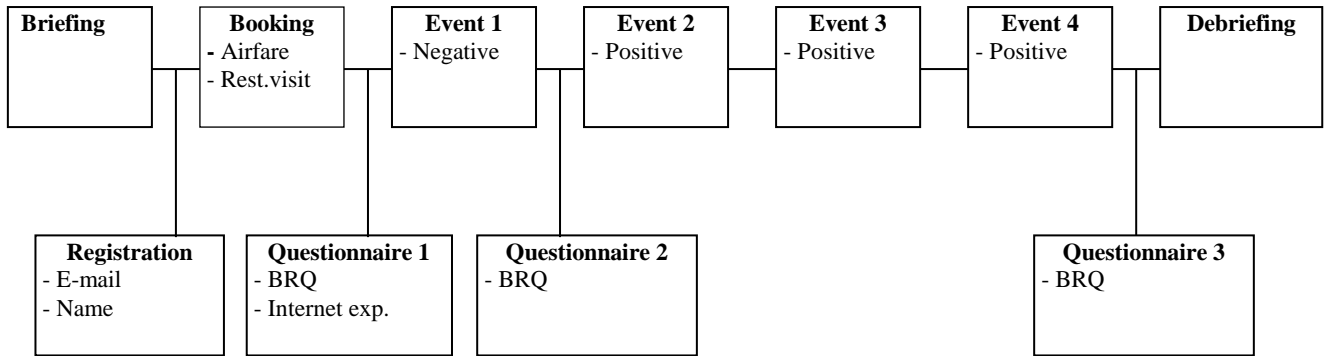
Table 1: Dimensions for personalization.

Blue & Gold Air

1. Where do you prefer to be seated?	__Back	__Middle	__Front
2. Window or aisle seating?	__Window	__Aisle	
3. What do you prefer to read?	__Newspaper	__Business Magazines	__Lifestyle

magazines

|			
4. What is your dining preference?	__Meat	__Seafood	__Vegetarian

Blue & Gold

1. Smoking preferences?	__Non-smoking	__Smoking	
2. Music preferences?	__Background classics	__Silent dining	
3. What kind of apertif do you prefer?	__Gin & Tonic	__Bitter	__Wine
4. Are you allergic to any ingredients?	__None	__Seafood	__Nuts,milk or

eggs

Table 2: Messages (Events).

Blue & Gold Air

Event 1 Unfortunately, we have trouble with our engines. All flights will be transferred from our Boeing 737 machines to our Saab 340 and Cessna machines. Consequently, you should expect a 30 min. delay in your scheduled departure.

Event 2 We apologize for the inconvenience of transferring you to our smaller aircraft. To make your flight more comfortable, you will receive "Royal"-class service on your upcoming flight. Gourmet meals are among the "Royal"-class services.

According to your preferences, you will be seated near the window in the back of the aircraft*.

Event 3 We confirm that all arrangements regarding change of aircraft now has been made. According to our schedule, captain Persson and first officer Stenberg will be responsible for your upcoming flight, while Nina, Peter and Anniken will assist in the cabin.

For your comfort, newspapers will be available at your seat*.

Event 4 Everything is now ready for your upcoming flight. Please show up at the airport at least 30 minutes before departure. If you need further assistance, show your Blue & Gold Air card to our support personnel at the airport. We wish you a pleasant flight.

Blue & Gold

Unfortunately, there is a problem with your upcoming dining reservation. Your table preferences could not be met, and you should expect a 30 min. delay in your scheduled reservation time.

We apologize for the problems with your upcoming reservation. To make your dining experience as pleasant as possible, seats will be reserved for your party in the bar where we will serve you a free apertif while you wait to be seated.

According to your preferences, Gin & Tonic will be served and seats will be available in the non-smoking area of the bar*.

We confirm that all arrangements regarding change of reservation now has been made. According to our schedule, managing chef will be Christian Courtot, while Nina and Peter will serve Your table.

For your comfort, you will be seated in the non-smoking area of the restaurant*.

Everything is now ready for your upcoming dining arrangement. The restaurant can be reached using both bus and Underground. Use the London Bridge or Tower Hill Stations. We will do our best to make your visit an unforgettable experience.

* : Personalized based on dimensions for personalization presented in table 1.

Figure 2: Web-sites for Blue & Gold Air and Blue & Gold.
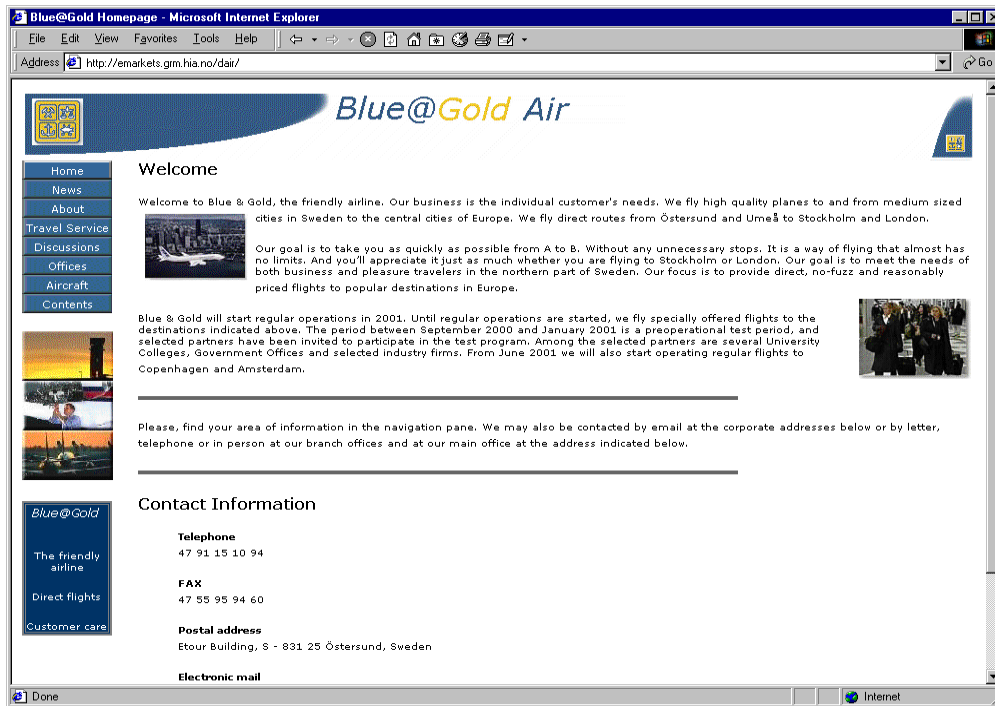
Table 3: Operationalizations.

Love/Passion
"I have a powerful attraction toward Blue&Gold"
"I feel my relationship with Blue&Gold is exclusive and special"
"I have feelings for Blue&Gold that I don't have for
  many other brands"
"I feel that Blue&Gold and I were really "meant for each other""

Self Connection
"Blue&Gold says a lot about the kind of person I am"
"Blue&Gold's image is consistent with how I'd like to see myself"
"Blue&Gold helps me make a statement about what is
important to me in life"
"I feel related to the type of people who are Blue&Gold customers"

Intimacy
"I feel like Blue&Gold actually cares about me"
"Blue&Gold really listens to what I have to say"
"I feel as though I really understand Blue&Gold"
"I feel as though Blue&Gold really understands me"

Partner Quality
"Blue&Gold treats me like an important and valuable customer"
"Blue&Gold is dependable and reliable"
"Blue&Gold has always been good to me"
"If Blue&Gold makes a claim or promise about its products, it's
  probably true"

Table 4: Moderating effect of Internet Experience

Measurement	BRQ-dimension	Customer Community		Personalized Web		d.f	F
		Low Exp.	High. Exp.	Low Exp.	High Exp.		
1	Intimacy	3.375	3.224	3.196	3.634	1	1.445
1	Self-Concept Connection	3.275	2.525	2.649	3.150	1	7.301**
1	Partner Quality	4.025	4.103	3.967	4.433	1	0.619
1	Passion	2.913	2.801	2.478	3.402	1	4.001*
2	Intimacy	3.696	3.270	3.511	4.180	1	4.493*
2	Self-Concept Connection	3.078	2.592	2.318	3.160	1	7.982**
2	Partner Quality	4.618	3.853	3.864	4.699	1	8.873**
2	Passion	2.941	2.763	2.421	3.397	1	4.738*
3	Intimacy	4.438	3.688	3.882	4.412	1	5.143*
3	Self-Concept Connection	3.734	2.703	2.570	3.243	1	8.484**
3	Partner Quality	5.354	4.406	4.737	4.816	1	3.955*
3	Passion	4.177	2.945	2.921	3.522	1	8.054**

* $p<.05$
**$p<.01$

Figure 3: Interaction effect.