

Situation-Based Shifts in Consumer Web Site Benefit Salience: The Joint Role of Affect and Cognition

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Situation-Based Shifts in Consumer Web Site Benefit Salience: The Joint Role of Affect and Cognition

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Abstract

This study addresses the process by which differences in web site benefit salience arise in consumers' minds for different anticipated usage situations. We investigate two routes by which situation may determine consumer benefit salience and find support for both route structures. The results indicate that individuals' relative benefit importance ratings shift between different anticipated usage situations, both directly, and indirectly, through consumers' anticipated affective states. Furthermore, the number of benefits that is rated as important by consumers is found to also differ depending on their anticipated affective states, providing further insight into why consumer benefit salience may vary across situations.

Keywords: Web site benefit salience; Cognitive route; Affective route; Usage situation

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1. Introduction

The Internet allows firms to provide consumers with anytime, anywhere access to many of their communications and services (e.g., product information, access to ordering, after-sales services). This highly flexible type of interaction places new demands on firms to manage potential differences in consumer web site requirements across a wide variety of usage situations [16,38]. If firms can adequately respond to usage situation-based variations in consumers' web site benefit requirements, this allows them to better design their web sites to meet consumers' needs in different usage situations. Therefore, while most research on consumer web site satisfaction has investigated web site benefit evaluations in general terms [18,25,30], researchers have recently also begun to explore how web site benefit requirements may vary across usage situations [46].

Relatively little is known however about the process by which differences in consumer web site benefit requirements arise. In this study we address the question why different benefits may become more vs. less salient to consumers across different anticipated usage situations. The anticipated usage situation is likely to activate different memory cues based on consumers' knowledge and passed experience in similar situations, and we define a web site benefit as salient to the consumer if the consumer judges this benefit to be important in a given anticipated usage situation.

Typically, variations in benefit salience are explained as a (implicit) cognitive selection process, whereby some benefits are more accessible in memory to the consumer when anticipating a particular usage situation than others. The differences in accessibility can be explained by the fact that these benefits are temporarily activated in a consumer's mind, for example because they have been important in deciding among alternatives in that situation in the past, or because the benefits carry strong associations with past experiences in the usage situation [35]. This type of process implies that consumers cognitively represent benefit information in a selective manner [35,42], and it has been shown that usage situation does indeed help consumers more easily define the benefits they require from a product's use [44]. Also research in the field of information technology (IT) has shown similar effects by indicating the importance of matching the user task needs to the specific functionality (benefits) of IT (task-technology fit) [8,11].

From early on, this cognitive view on consumers' mental benefit activation was challenged however by researchers who argued for a more important role of consumers' affective states in explaining situational variation in consumer behavior. For instance, Lutz and Kakkar [19] proposed that different usage situations may induce different affective states, which in turn may lead to differences in consumers' responses. Likewise, other research shows that, more generally, affective state at the moment of consumption may affect benefit focus, for example when engaging in a hedonic versus an utilitarian shopping experience [1].

We extend this thought and predict that just as consumers anticipate the benefits they find important, they may also anticipate their affective states, which in turn may impact benefit importance. We therefore propose that consumers may also anticipate their future affective state when considering web sites for different anticipated usage situations. In particular, we

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investigate if consumers' anticipated affective states can explain observed variations in benefit salience for different anticipated usage situations. Here, in line with Loewenstein et al. [17] we conceptualize an anticipated affective state as the consumer's expectation of his or her affective response at a future point in time (i.e., in the anticipated usage situation).

The contribution of the current study thus is to investigate if usage situation-based anticipated differences in affective states provide a complementary explanation to a direct cognitive effect of anticipated usage situation on consumer web site benefit salience. As a secondary contribution, we also investigate if the impact of usage situation-based differences in anticipated affective state influences the number of benefits that are salient to the consumer. If consumers take into account varying numbers of benefits depending on the usage situation that they anticipate, this may generate further shifts in the potential impact of different web site benefits on consumer web site consideration. We empirically test the proposed dual structure of the impact of anticipated usage situation on consumer web site benefit salience in the context of consumer recipe web sites.

2. The impact of anticipated usage situation on consumer web site benefit salience

Recent research provides insights in the benefits that consumers look for in firms' web sites such as the perceived relevance of the web site, and its reliability and usefulness, the level of user control the web site provides, and its entertainment value [24,25,30,48,49]. In our conceptualization of how usage situation may affect the salience of such different web site benefits, we build on the substitution-in-use approach [40,41], which suggests that the benefits that consumers require a product or service to have can vary across usage situations. This approach extends earlier work on situational effects in consumer behavior where usage situation is defined in terms of dimensions that are external to both the consumer and the decision alternatives he or she faces (e.g., physical surrounding, social surrounding, temporal perspective) [4,5].

More specifically, Srivastava [40] argues that consumers rely on prior learning and their experiences when faced with a specific situation in which they need to retrieve information. This reasoning is based on the premise that consumers have limited information-processing capabilities, including memory restrictions [6,31]. Consistent with this notion, we expect that because of consumers' limited working memory only the most relevant subset of benefits will be made salient in working memory in a given usage situation (i.e., accessed from stored knowledge because they are triggered by the situational context). Ratneshwar and Shocker [34] further propose that the usage context might activate a certain schemata that helps consumers retrieve those benefits that are essential in the situation. In turn, consumers call up products or services from memory that match these benefits.

Thus, we expect that there is a direct cognitive route from the anticipated usage situation to the benefits that are made salient in the consumer's mind, which can be explained through a memory-based process. When confronted with a certain situation, consumers may directly retrieve (salient) benefits to the choice problem. For example, an Internet user anticipating that he or she will face a time constraint when buying a product online later in the day, might recall prior online buying experiences with time constraints and thereby bring to mind certain benefits that are important in this specific situation (e.g., ease of use, speed). In contrast, a person who anticipates spending quite some time surfing web sites browsing for possible products to buy, likely activates a very different set of benefits (e.g., entertainment value, information scope). This example illustrates that the anticipated usage situation can influence consumers' mental representation of a decision problem by triggering certain memory cues that determine the salience of different benefits.

In the current study, we integrate this cognitive approach with other research emphasizing the importance of analyzing the situation in terms of its psychological representation by consumers [19]. To do so, we conceptualize consumers' situation-driven internal state variables (affective states) not as part of the usage situation itself but as an aspect of the consumer's response to the usage situation. We propose that when a consumer anticipates a certain usage situation, this affective response is also reflected in his or her mental representation of the situation (see Fig. 1). This allows us to decompose the (direct) cognitive activation of salient benefits in the consumer's mind from the possible (indirect) affect-based activation of benefits that may also occur. We hypothesize:

Hypothesis 1. The relative salience of different web site benefits shifts across different anticipated usage situations even when controlling for shifts in the consumer's associated anticipated affective state.

-- INSERT FIGURE 1 ABOUT HERE --

Though the impact of usage situation through a consumer's anticipated affective state on consumer benefit salience has not been investigated before, the influence of various situation-type stimuli on consumers' affective states has received considerable attention. For instance, in terms of consumers' emotional responses to various consumption experiences [22,47], the

impact of retail shopping environments (atmospherics) on consumers' emotional states [9], and consumers' emotional responses to various types of advertising [50].

Further, the premise that emotional states have an influential impact on consumer decision making has found considerable support among researchers as well [2,20]. For instance, the impact of affective states (e.g., pleasure) on consumers' information processing has been studied, including the encoding and retrieval of information and the diverse evaluation strategies consumers might use in processing information [2,37]. In retail settings, Baker, Levy, and Grewal [3] explore the impact of emotional states on consumers' intended shopping behavior (e.g., time spent in the store, intention to return) and find support for this effect.

In this study, we connect these two steps (i.e., usage situation on affective state, and affective state on decision making) and argue that they will also jointly determine the impact of anticipated usage situation on benefit salience. To do so, we draw on studies that show that individuals experiencing positive affect perform better in problem solving tasks than individuals feeling sad [13]. More specifically, the key dimension of the consumer's positive affective response that we address in this study is their anticipated pleasure in a given usage situation. Pleasure represents one of the most important consumer emotional states for explaining affective responses to a wide variety of stimuli [19,26,32,36,39,50]. We define it as the component of the affective response that expresses feelings such as happiness, contentment, and satisfaction [19] and reflects whether a person feels good in an environment [3].

Researchers have argued that positive affect amplifies consumers' decision making and encourages approach behavior [13,28]. Isen [13], on the basis of a review of the literature about the influence of positive affect on decision making, states that positive affect increases consumers' problem solving and that consumers integrate more information into their decision

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making. Furthermore, "positive affect facilitates creativity, cognitive flexibility, innovative responding, and openness to information" [13, p.76]. Also, Kahn and Isen [15] find that consumers who experience positive affect seek more variety in their product choices, just as people who experience positive affect generally enhance their elaboration and thinking. Therefore, people in a positive affective state appear to experience the task as an enjoyment in itself and consequently are stimulated to process more information [21].

Based on this previous research we expect that consumers, who -from their past experiencesassociate a greater positive affect with a certain usage situation, are likely to have been more open and willing to process information in this specific usage situation. Therefore, more benefits are likely to have been salient to them in this usage situation. Thus, we hypothesize that their experienced positive affect in the past will also cause them to associate a greater number of salient benefits when asked to anticipate this usage situation for future decisions.

Hypothesis 2. Usage situations associated with greater anticipated positive affect lead to a greater number of salient web site benefits.

Extending this effect, we propose a further underlying process that links consumers' anticipated affective state and consumer decision making [14]. According to Isen and Geva [14], who induced positive affect and asked respondents to participate in a gamble to measure their risk preferences, people who feel good (i.e., positive affect) wish to maintain this state and are less willing to take risks. Such individuals tend to behave very conservatively (i.e., focus on the loss) to maintain their happy mood. This outcome falls in line with results reported by Meloy [27], who investigates the impact of positive mood on consumers' product information

processing and finds that consumers in a more positive mood process information that is more congruent with their positive state to sustain their mood. We expect that a comparable process takes place with regard to the effects of situation-induced mood on benefit salience and that consumers who have experienced positive affect in a given usage situation will have learned that they wish to maintain this affective state in that situation by focusing on pleasure-oriented benefits. We expect that this cognitive connection between the positive usage situation, affective state, and benefit focus is also reflected in consumers' mental representation of a usage situation when asked to anticipate on it. Therefore, we hypothesize:

Hypothesis 3. Usage situations associated with greater anticipated positive affect lead to a greater salience of pleasure-oriented web site benefits.

3. Method and data

We test the proposed hypotheses empirically by asking respondents to project themselves into a certain anticipated usage situation in which they have a choice of web sites. The application that we used was a choice of recipe web sites, which is a relatively common application on the Internet (e.g., www.allrecipes.com, www.epicurious.com). In this context the importance of anytime, anywhere access for many consumer–firm relationships and how firms can meet varying needs across individual consumers is also quite apparent. For example, searching for recipe information on the Internet when wanting to prepare a quick meal for oneself is likely to lead a person to look for very different benefits (e.g., informational content, quality of the system) than would looking for recipe information on the Internet when planning to prepare a fancy meal for a friend. In the latter usage situation, the consumer might most value detailed and trustworthy information, whereas in the former, the consumer might value time saving as an important feature of the web site. Considering the vast increase in consumers' concerns about health-related factors (e.g., dieting, nutrition, self-medication) [29] further emphasizes the relevance of this application.

3.1. Participants and experimental design

The participants for the study were recruited from volunteer pools at two universities by announcing the study in an e-mail to potential participants. The study was run online and the link to the study web site was closed after 12 days, providing us with a total of 281 respondents. Participants were eligible to win a gift voucher for taking part in the research. Responses from 5 participants were eliminated from further analysis because they contained outliers, another 7 participants were eliminated because they indicated that they cooked less than once a week, making them unfit to respond meaningfully to the usage situations in our study. Thus, we possess a sample of 269 subjects. Of the respondents 21.9% are men, and the mean age of the respondents is 24.3 years.

We adopted a 2×2 between-subject experimental design to vary the usage situation and assigned respondents randomly to one of four conditions that represent different hypothetical usage situations in which consumers consider using different web sites to find a suitable recipe for cooking a dinner. Anchored in the work of Belk [5], we focused on time and social factors as two situational characteristics for manipulation. To create the two time conditions, we altered the time constraint that respondents faced in the hypothetical usage situation. In the strong time constraint condition, respondents were told that they would have to look for a web site with recipes to prepare a dinner for tomorrow night, whereas in the weak time constraint situation, the dinner was scheduled to take place in two weeks. To create two social conditions, we described the social context in which respondents had to look for a web site with recipes. Respondents in a high social pressure situation were asked to imagine they recently made a new female friend that they wanted to impress¹, and this friend valued a healthy, low calorie dinner. In the low social pressure situation, respondents were told that a dinner had to be prepared for someone living in the same apartment complex (see Appendix A for example scenarios). After respondents had been exposed to the scenarios, we assessed their ratings of anticipated affective states (i.e., pleasure and arousal) in the specific usage situation and also obtained their anticipated benefit salience by assessing the importance measures that respondents' attached to the web site benefits in the given usage situation [43].

The manipulation checks employ seven-point Likert-type scales (1 = strongly disagree, 7 = strongly agree). The manipulation check for social pressure consists of four items [12], adapted for the context of our study. After reading the description of the usage situation, subjects responded to the following items: In this situation: (1) I find it necessary to look for information, (2) the person expects to receive the right menu from me, (3) the person coming for dinner would be disappointed if I had forgotten to look for the information, and (4) I absolutely have to look for the information. We compare the average of these items across the high and low social pressure groups and find a significant difference between the means of the low social pressure

¹ In a pretest we tested if males and females responded differently to male and female friends. We found that males were significantly more socially pressured when expecting a female friend, whereas as females were equally (highly) socially pressured for male and female friends. Based on this finding we presented both males and females with scenarios in which a female friend was invited.

group (Mean = 3.48, *n* = 126) and high pressure group (Mean = 3.99, *n* = 143) (t = 3.42, *p* = < 0.001).

To measure the perceived impact of the time constraint, respondents answered the following questions: In this situation: (1) I find myself pressed for time, (2) I am in hurry, (3) I have only a limited amount of time to look for the information, (4) I must finish looking for information fast since I have other things to do, and (5) I have more than enough time to look for the necessary information [33]. The averages of these items in the weak time constraint group (Mean = 2.15, n = 132) and the strong time constraint group (Mean = 3.04, n = 137) are significantly different (t = 6.75, p = < 0.001). Therefore, we are confident that our manipulations worked.

Finally, we also performed a realism check to test whether consumers found the usage situation realistic. We selected a seven-point Likert-type scale (1 = strongly disagree, 7 = strongly agree) [7] and asked respondents to rate the following two items: (1) the situation described was realistic and (2) I had no difficulty to imagine myself in the situation. The results showed that respondents had no difficulties imagining themselves in the given usage situation, with ratings of Mean = 4.68 and Mean = 5.08 for the two items, respectively. Additionally, we asked respondents to indicate their Internet search skills [24]. The results indicate that respondents are heavy Internet users (Mean = 5.30 on a Likert-type scales where 1 = strongly disagree, 7 = strongly agree); therefore, we can safely assume that these respondents understand what a typical Internet web site looks like. Respondents also reported their weekly cooking instances to allow us to screen out those respondents for whom the usage situation provided would not be sufficiently meaningful (i.e., if they cooked less than once a week). Thus, of the respondents analyzed in this study everyone cooks at least once a week, with the majority of respondents (61.3%) cooking four or more times a week.

3.2. Measures and construct validation

3.2.1. Affective state

In manipulating respondents' anticipated affective states in our empirical analysis, we adopted an approach taken in many studies that manipulate positive affect by focusing on pleasure/positive mood (e.g., giving a small gift such as candy) [15,27]. However, we also recognize that respondents may at the same time also anticipate being aroused. Arousal is typically defined as the component of affective response that expresses how excited and stimulated a person feels [3,19], and it has been argued that it could also be a correlate of positive affect [45]. Therefore, we include anticipated arousal as a control variable in our model estimation. To measure responses to these two dimensions, we use seven-point bipolar adjectival scales [19,26]. Specifically, we measure pleasure by asking respondents to rate the following items: unhappy/happy, melancholic/contented, annoyed/pleased, unsatisfied/satisfied, despairing/hopeful, and bored/relaxed. Respondents rated their arousal according to the following items: sluggish/frenzied, calm/excited, relaxed/stimulated, unaroused/aroused, dull/jittery, and sleepy/wide awake.

3.2.2. Benefits

In total we define 13 web site benefits: relevance, understandability, reliability, adequacy, scope, usefulness, usability, speed, entertainment, navigation, tailored information, hyperlinks, and decisional control. Taken together, these benefits represent the main themes in the current marketing and management information systems literature [24,25,49]. Table 1 provides an overview of the benefits that were used and the sources of their scales. We adapted the benefits

slightly to the context of our study (Appendix B provides an overview of the scale items). To measure anticipated benefit salience, we asked respondents to indicate on a seven-point Likert-type scale (1 = strongly disagree, 7 = strongly agree) if they found the benefits to be important in the particular experimental usage situation [43]. We assessed the number of salient benefits by determining how often respondents indicated a score of six or higher for each benefit (composite score) and adding those scores.²

--INSERT TABLE 1 ABOUT HERE--

3.2.3. Construct validation

We conduct two confirmatory factor analyses to purify our scales. First, we test for the reliability of the pleasure and arousal constructs. We deleted the following items because of their low factor loadings and/or high modification indices: bored/relaxed, unsatisfied/satisfied, calm/excited, sleepy/awake, and sluggish/frenzied. The subsequent results provide a good model fit ($\chi 2 = 30.74$, df = 13, p < 0.004; comparative fit index [CFI] = 0.98, nonnormed fit index [NNFI] = Tucker-Lewis index [TLI] = 0.97, root mean square error of approximation [RMSEA] = 0.071, and adjusted goodness-of-fit index [AGFI] = 0.93 with a standard root mean square residual [SRMSR] of 0.042). All factor loadings are significant (t-values greater than 6.59), and all completely standardized loadings are greater than 0.56 with an average of 0.78. These findings support the convergent validity of our measures. Cronbach's alphas are 0.88 and 0.67 for pleasure and arousal, respectively. To verify the discriminant validity, we followed the approach by Fornell and Larcker [10], which states that the average variance extracted (AVE) of

² We also performed an analysis, in which we assessed the number of salient benefits by determining how often respondents indicated a score of five or higher. This did not affect our conclusions.

a latent construct must be greater than the squared correlations with other latent constructs. The estimates of the AVE are 0.82 and 0.61 for pleasure and arousal, respectively, and exceed the squared correlation of these constructs. Consequently, we average the appropriate scale items to obtain a composite score for pleasure and arousal.

We conduct a second confirmatory factor analysis to test the reliability of the 13 benefits and deleted 7 items because of their low factor loadings and/or high modification indices across constructs (see Appendix B for an overview of all scale items). This deletion provides a good model fit ($\chi 2 = 1482.94$, df = 599, p < 0.001, CFI = 0.96, NNFI = TLI = 0.95, RMSEA = 0.074, and AGFI = 0.72 with SRMSR = 0.047). All factor loadings are significant (t-values greater than 11.00), and all completely standardized loadings are greater than 0.70, with an average of 0.86. These findings support the convergent validity of the measures. Cronbach's alphas of all factors range from 0.79 to 0.90 (Appendix B). The estimates of the AVE range from 0.74 to 0.9 and are larger than the squared correlations with the other constructs, which provides evidence of discriminant validity. We therefore average the appropriate scale items to obtain a composite score for each benefit.

3.3. Model specification

To allow us to test hypothesis H1 and H3, we express a formal model specification relating usage situation, anticipated pleasure, and benefit salience. In doing so we also control for a respondent's anticipated arousal. If the impact of usage situation on benefit salience is significant in this model this provides support for H1. If the impact of anticipated pleasure on the salience of pleasure-oriented benefits is significant and positive this provides support for H3. The formal model specification is as follows:

$$\mathbf{B}_{js} = \boldsymbol{\alpha} + \boldsymbol{\beta}_{S} \mathbf{S} + \boldsymbol{\beta}_{Pl} P l_{js} + \boldsymbol{\beta}_{Ar} A r_{js} + \boldsymbol{\varepsilon}_{js} \qquad (1)$$
$$P l_{js} = \boldsymbol{\alpha}_{Pl} + \boldsymbol{\beta}_{S}^{Pl} \mathbf{S} + \boldsymbol{\varepsilon}_{js}^{Pl}$$
$$A r_{js} = \boldsymbol{\alpha}_{Ar} + \boldsymbol{\beta}_{S}^{Ar} \mathbf{S} + \boldsymbol{\varepsilon}_{js}^{Ar}$$

where, **B**_{js} is a vector of benefit saliences for individual *j* in usage situation *s*, *Pl*_{js} is individual *j*'s anticipated pleasure in usage situation *s*, *Ar*_{js}, is individual *j*'s anticipated arousal in usage situation *s*, **S** is a vector of situation factors (time constraint and social pressure) that determine usage situation *s*. The parameters α , α_{Pl} and α_{Ar} are (a vector of) intercepts in the benefit salience, anticipated pleasure, and anticipated arousal equations respectively. β_{S} , β_{Pl} , and β_{Ar} and are vectors of the effects of usage situation factors on anticipated pleasure, and β_{s}^{Ar} is a vector of the effects of usage situation factors on anticipated pleasure, and β_{s}^{Ar} is a vector of the effects of usage situation factors on anticipated pleasure, and β_{s}^{Ar} is a vector of the effects of usage situation factors arousal. ε_{js} , ε_{js}^{Pl} and ε_{js}^{Ar} finally, are (a vector of) error terms in the benefit salience, anticipated pleasure, and anticipated pleasure, and anticipated arousal equations respectively. These error terms are assumed to be normally distributed.

To allow for simultaneous estimation of the different relationships in the model and to correct for endogeneity in the disturbance terms of the corresponding equations we used three-stage least squares (3SLS) approach in our estimation.

For H2, which addresses the impact of usage situation on the number of salient benefits the formal specifications are expressed analogously. In this case, the benefit salience vector \mathbf{B}_{js} is replaced by a single indicator N_{js} of the number of salient benefits for individual *j* in usage situation *s*. If the impact of anticipated pleasure on the number of salient benefits is significant and positive this provides support for H2.

4. Analysis and results

First, we jointly test the (direct) cognitive effect of usage situation on benefit salience as hypothesized in H1 and the (indirect) effect of anticipated positive affect as hypothesized in H3 (eq. 1). Table 2 provides the results of this analysis. In support of H1, the results illustrate that social pressure has a significant negative effect on adequacy ($\beta = -0.26$, p < 0.05), scope ($\beta = -$ 0.43, p < 0.05), usefulness ($\beta = -0.24$, p < 0.05), speed ($\beta = -0.35$, p < 0.05), navigation ($\beta = -$ 0.30, p < 0.05), and decisional control ($\beta = -0.62$, p < 0.01). Furthermore, time constraint has a significant negative effect on entertainment ($\beta = -0.41$, p < 0.05).

Because our key interest is in the *relative* shift of individual respondents' benefit salience, rather than an overall shift in benefit salience, we next conduct a Wald test in which we restrict the shift within both manipulation conditions to be constant. If this imposed restriction generates a significant decrease in model fit compared to the model in which shifts in benefit salience are allowed to differ, this suggests that as hypothesized benefit salience is affected differentially by usage situation. We find that the Wald test results are significant (x2 = 35.14, df = 22, p < 0.05), which provides further support for the hypothesis that the relative importance of anticipated benefits shifts across the usage situations. Closer inspection shows that this effect is driven by social pressure more than by time constraint.

--INSERT TABLE 2 ABOUT HERE--

The results in Table 2 also demonstrate that anticipated positive affect (i.e., pleasure) has the strongest influence on the benefit entertainment. Thus, our findings also provide support for H3.

To further examine whether the difference in impact of anticipated positive affect on the entertainment benefit is significantly more positive than its impact on all other benefits, we perform a series of pairwise Wald tests equating the impact of anticipate positive affect on entertainment to be the same as its impact on each other benefit. We find significant differences at the 0.05 level between entertainment and all other benefits. This provides further support for the hypothesis that the salience of pleasure-oriented benefits (i.e., entertainment) is indeed increased relatively strongly by anticipated positive affect.

--INSERT TABLE 3 ABOUT HERE--

Finally, we test the effect of anticipated positive affect on the number of salient benefits (H2). The results are presented in Table 3. This effect is significant and in the expected direction ($\beta = 2.91, p < 0.01$) providing support for H2.

We also controlled for the possibility that usage situation affects the number of salient benefits directly. The results show no effect in the time constraint condition. However, social pressure decreases the number of salient benefits ($\beta = -1.38$, p < 0.01), even when taking into account the effects of anticipated affective states. This suggests that anticipated affective state is not the only driving factor of the number salient benefits in the consumers mental representation of the anticipated situation.

Furthermore, in both analyses we also controlled for the effects of usage situation on anticipated arousal, and of anticipated arousal on benefit salience. As expected we find some significant effects here as well. They do not however affect our conclusions regarding the impact of positive affect on benefit salience.

5. Conclusion and discussion

For many years, researchers have attempted to describe the role of usage situation for marketing [5]. We demonstrate the importance of usage situation on the relative salience of anticipated benefits as well as on the number of benefits made salient. Furthermore, we illustrate that the mechanism involved in this process is multifaceted. Overall, our results provide support for our conceptual model. The usage situations that we examine seem to trigger salience for some benefits but not others, and those which are salient shift across the manipulation conditions, as hypothesized. We also note that consumers who experience anticipated positive affect find the entertaining aspect of a web site more important compared to other benefits.

Furthermore, we find strong evidence that anticipated positive affect (pleasure) has a direct effect on the number of salient benefits. Respondents who experienced higher anticipated positive affect associated a greater number of salient benefits with the usage situation.

Many empirical studies in marketing research consider the relationship between a situation and consumer preferences [5,41]. Furthermore, the impact of the usage situation on consumers' benefit activation (salience) has received considerable support over the years [35,44]. We offer an attempt to further disentangle the "black box" of how usage situation may drive benefit salience and ultimately consumer decision making. Specifically, we examine two mechanisms (i.e., cognitive and affective) that underlie the link between anticipated usage situation and benefit salience. Furthermore, measuring consumers' responses via the new information medium of the Internet extends the theoretical implications of our study. Overall, we find evidence of the cognitive route, according to which the usage situation has a direct influence on the benefits that are made salient in consumers' minds. However, we also find evidence of an affective route for

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understanding the impact of situational effects, which clearly shows that a person's anticipated affective state influences the benefits that this person finds important. This dual support highlights the importance of accounting for cognitive and affective effects simultaneously in understanding the effect of usage situation on consumers' benefit salience.

Our results also illustrate that for consumers who experience stronger anticipated positive affect, more benefits become salient, which may have direct managerial implications for the customization of web sites. For instance, knowing the anticipated affective states that get triggered by specific usage situations might help in web site design. As an example, a manufacturer that knows a consumer anticipates time constraints could design a simpler web site with fewer entertaining features. The awareness of consumers' usage situations and their impact on specific anticipated affective states also could help web site designers to match consumers' mood states which, in turn, could promote certain types of behavior (e.g., time and/or money spent on the site). When we tentatively extrapolate our findings on the impact of anticipated affective states affective states, web sites could for example attempt to measure or influence consumers' emotions once they enter a web site and the site's benefits could be tailored to that specific emotion [28]. For example, if consumers are feeling more positive, the web site should feature a more complex design and content addition.

In an exploratory analysis we also tested the direct effect of usage situation on the number of salient benefits and observed a decrease in the number of salient benefits for consumers who experience social pressure. This outcome seems to offer an interesting starting point for a future research, investigating reasons besides affective state that can explain why consumers may activate fewer benefits in some conditions than others.

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Finally, in our study we focus on the impact of positive affective states. Future studies could consider the impact of situational variation on negative affective states or other more detailed affective responses. A further extension could measure consumers' preferences for specific web sites and assess actual online web site choices (e.g., web sites browsed). Further research could also observe consumers' emotions directly (e.g., facial expressions) rather than relying on consumers' self-reported perceptions of their emotions.

Appendix A Scenario description example

Strong time constraint/low social pressure

You have offered to someone in your apartment complex to cook dinner tomorrow night. You are now going to look on the Internet for a healthy, low calorie recipe.

Weak time constraint/high social pressure

You recently made a new girlfriend and you want to impress her; therefore, you invited her for dinner at your place in two weeks. You know that she values a healthy, low calorie dinner; therefore, you plan to look on the Internet for a recipe.

Construct	Item Description	Reliability
Relevance	In this situation, I find it important that the information on the web site is applicable for mv the information on the web site is related to mv objective. the information on the web site is pertinent for mv objective. in general, the information on the web site is relevant for mv objective.	a = .86
Understandabilit	In this situation, I find it important that the information on the web site is clear in meaning.* the information on the web site is easy to comprehend. the information on the web site is easy to in general, the information on the web site is understandable.	a = .90
Reliability	In this situation, I find it important that the information on the web site is trustworthy. the information on the web site is accurate. the information on the web site is credible. in general, the information on the web site is reliable.	a = .90
Adequacy	In this situation, I find it important that the information on the web site is sufficient for my information need. the information on the web site is complete for my information need.* the information on the web site covers necessary topics for my information need. in general, the information on the web site is adequate for my information need.	a = .83
Scope	In this situation, I find it important that the information on the web site covers a wide range. the information on the web site covers a wide variety of topics. the information on the web site covers a number of different topics.	a = .89

Appendix B Benefit scale items and reliability measure

Construct	Item Description	Reliability
	in general, the information on the web site covers a broad scope of topics.*	
Usefulness Usability	In this situation, I find it important that the information on the web site is helpful. the information on the web site is valuable for my information need. in general, the information on the web site is useful for my information need. In this situation, I find it important that the web site has a simple layout for its the web site is easy to use. the web site is well-organized. the web site has a clear design. in general, the web site is user-friendly.	a = .89 a = .88
Speed	In this situation, I find it important that the web site is time saving. it does not take a lot of time to get from one place in the web site to another. the web site is fast.	a = .79
Entertainment	In this situation, I find it important that the web site is entertaining. the web site is catching.* the web site not only provides information but also entertains me.	a = .85
Navigation	In this situation, I find it important that it is easy to go back and forth between web site pages. with a few clicks one can locate the it is easy to navigate on the web site.	a = .79
Tailored Information	In this situation, I find it important that the web site is interactive to receive tailored information. the web site has interactive features, which helps me accomplish my task. I can communicate with the web site in order to get information tailored to my specific	a = .86
Hyperlinks	In this situation, I find it important that the web site has an adequate number of the web site has clear descriptions for each	a = .60

Construct	Item Description	Reliability
Control	In this situation, I find it important that navigating on the web site allows me to make	a = .88
	a lot of decision on my own.	
	I have a lot to say about what happens in	
	these online information searches.	
	I have flexibility in my interactions with the	
	web site while searching for information.	
(*) indicates that this	item was deleted on the basis of confirmatory factor analysis	

(*) indicates that this item was deleted on the basis of confirmatory factor analysis.

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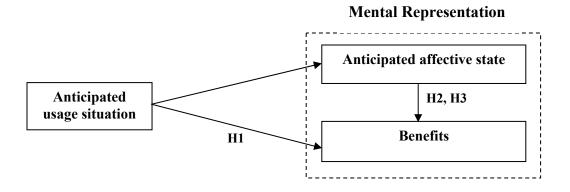


Fig. 1. Consumers' mental representation of an anticipated usage situation

Table 1 Web site benefits

Dimension	Description	Source
Relevance	The extent to which the user perceives the information to	McKinney et al.
	be relevant and applicable to accomplish a certain task	[25]
Understandability	The extent to which the user perceives the information to	McKinney et al.
	be clear in meaning, easy to understand, and easy to use	[25]
Reliability	The extent to which the user perceives the information to	McKinney et al.
	be accurate, dependable, and consistent	[25]
Adequacy	The extent to which the user perceives the information to	McKinney et al.
	be sufficient and complete	[25]
Scope	The extent to which the user perceives the information to	McKinney et al.
	cover a wide range and variety of topics	[25]
Usefulness	The extent to which the user perceives the information to	McKinney et al.
	be informative and valuable	[25]
Usability	The extent to which the user perceives the web site	McKinney et al.
	visually appealing, easy to use, user-friendly	[25]
Speed	The extent to which the user perceives the web site to be fast	Muylle et al. [30]
Entertainment	The extent to which the user perceives the web site to	Mathwick et al.
Value	offer immediate pleasure for its own sake	[23]
Navigation	The extent to which the user perceives the web site to be	McKinney et al.
	easy to navigate	[25]
Tailored	The extent to which the user perceives the web site to	Loiacono et al.
Information	provide tailored/personalized information to meet specific needs	[18]
Hyperlinks	The extent to which the user perceives the web site to	McKinney et al.
	offer an adequate number and clear links	[25]
Decisional	The extent to which the user perceives that the web site	Mathwick and
Control	supports own decision-making and flexibility	Rigdon[24]

Table 2 The impact of situation on consumers' benefit salience ratings^f

	Benefit salience							Affective state					
	Relevance	Reliability	Adequacy	Scope	Useful- ness	Us- ability	Speed	Enter- tainment	Navi- gation	Tailored Information	Control	Pleasure	Arousal
Usage situation									-				
Time constraint Social pressure			-0.26*	-0.43*	-0.24*		-0.35*	-0.41*	-0.30*		-0.62**	0.27*	0.29*
Affective state													
Pleasure (positive affect)	0.40*	0.54*	0.64**	0.99**	0.35*			1.79** ^α	0.63**	1.03**	1.08**	n.a.	n.a.
(positive affect) Arousal		0.61*	0.57**		0.43*	0.61*	1.57**		0.74**		0.54*	n.a.	n.a.

[£] Only significant effects are reported in the table, n.a. = not applicable, 3SLS estimation was used. ** p < 0.01. * p < 0.05. ^{α} = Significantly different from all other benefits (p <0.05).

Table 3 The impact of situation on the number of benefits salient to the consumer^{\pounds}

	Number of benefits	Affective state		
		Pleasure	Arousal	
Usage situation				
Time constraint				
Social pressure	-1.38**	0.27*	0.29*	
Affective state				
Pleasure (positive affect)	2.91**	n.a.	n.a.	
Arousal	2.60**	n.a.	n.a.	

[£] Only significant effects are reported in the table, 3SLS estimation was used. ** p < 0.01. * p < 0.05.

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