It’s All About Who You Are:

Four Papers on the Role of Individual Personality Differences in Consumer Marketing

by

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Thesis submitted in fulfilment of the requirements for the degree of PHILOSOPHIA DOCTOR (Ph.D).

University of Stavanger
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2011
It’s the heart afraid of breakin’
That never learns to dance
It’s the dream, afraid of wakin’
That never takes a chance
It’s the one who won’t be taken,
Who can not seem to give
And the soul afraid of dyin’
That never learns to live

(from "The Rose")
To Sondre
ACKNOWLEDGMENTS

Working your way through a Ph.D-program is not like playing a one man band. And I guess every candidate that reaches the point where final submission is just around the corner, suddenly realize that the number of people that have contributed along the way is actually far more extensive than first thought. Hence, I would like to express my deepest appreciation for the discussions, inputs, laughs, disagreements, parties and pints of beer that all my colleagues at UiS have shared with me in the time from starting this thesis to its completion. A special thanks to my advisor, Professor Torvald Øgaard. Moreover, I will also thank all my former colleagues at the BI Norwegian School of Management for 10 great years at the campuses in Oslo and Stavanger, and I know that without the fantastic enthusiasm and encouragement I got at BI, I would never have finished a single paper.

This thesis is a collection of papers, which implies that I am deeply indebted to my fantastic co-authors; Jo Are Sand, Mehmet Mehmetoglu, Tor W. Andreassen, James E. Sallis and my co-author and very good friend Bendik M. Samuelsen. Without you guys this thesis would not exist.

Friends who stay with you for life are often in shortage, but my close and long life friends in “Lagård Fårikål og Tjuvfiskelag” has always been there for me, and I hope they always will. Thank you, Jørgen, Kjell, John Arne and Geir.

Finally, I would like to thank my family for putting up with me for 40 years, and especially my son Sondre for bringing into my life dimensions that I never knew existed. I promise you, we will not sell the dingy…..
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Imagine two young Norwegian women, Marie and Dina, who are enjoying a Saturday evening visit to a downtown ethnic restaurant. They are of equal age, have an equal level of experience and interest in tasteful restaurant meals, their economic resources are about the same, they are both anthropology grad students, and they also have pretty common interests on a number of other areas like music, boys, fashion clothing and alpine mountaineering, to name a few. A few days later, their friend Hilde, who is a psychology student at the university, asks them about their restaurant evening, and they both agree that it was a very nice Saturday, and that the restaurant is one they can absolutely recommend. When tapping into the underlying reasons to their satisfaction, their friend learns that they are both equally satisfied with the meal, the wine, the atmosphere, and the cute Brazilian waiter. However, whereas Marie would love to visit the restaurant again in the near future, Dina would rather not. While this may come as a surprise to restaurant manager Richard, who is trained to seek customer satisfaction because repurchase is generally determined by satisfaction (Oliver, 1997), the psychology student Hilde knows exactly why Marie’s and Dina’s repurchase intentions differ; Dina is a variety seeker, who visits different restaurants for no other reason than being fond of variation (Homburg and Giering, 2001). Marie, on the other hand, is not. Hence, if Richard surveyed a number of Dina’s variety seeking companions about their satisfaction level and their intention to re-visit the restaurant, he would probably be puzzled by finding no link
between the two concepts. On the contrary, if his sample consisted of Marie’s equals only, he would probably find a strong relationship between their satisfaction and their repurchase intention. Finally, if the unfortunate manager had a sample consisting of both Dina and Marie, he might end up with data telling him that there is a significant relationship between the two concepts, but that the relationship is somewhat weak. Consider then, that the same survey was conducted by a psychologist, who knew that a number of people are variety seekers, and that these customers are somewhat less likely to visit the same restaurant twice no matter how satisfied they are. Her questionnaire would include items covering the variety seeking continuum, and she would include this in her analysis. She might then find that there is a strong and significant relationship between Marie’s level of customer satisfaction and her repurchase intentions, while there is no such relationship in the data supplied by Dina. What the psychologist has done is to introduce the moderating effect of personality differences, and she would conclude that the relationship between customer satisfaction and loyalty was moderated by the consumers’ variety seeking tendency (Homburg and Giering, 2001). The moderating effect of personality traits in models of consumer marketing is what this thesis is all about. Or stated differently, the thesis introduces the typical personality psychologists’ viewpoint to the study of marketing phenomena; “There are few differences between people, but what differences there are really matter” (Burger, 2008). In other words - It’s all about who you are.
1.1 Topics, motivations and background

A question that has preoccupied psychologists since the early days of their academic discipline is whether our behavior is shaped by the situation we are in or the type of person we are? Today, most psychologists agree that we are both influenced by the current situation and the person we are. Hence, contemporary studies within the realm of psychology are usually concerned with either how people typically respond to a specific stimulus in the environment, or why people react differently to that stimulus (Burger, 2008). Stated differently, social psychologists usually concentrate on how people will generally react in a given situation, while personality psychologists focus on why two individuals respond differently in the same situation. Within the area of consumer psychology, a similar pattern is evident. While some researchers are interested in how consumers in general respond to a certain stimulus, like emotional appeals in advertising, and thus are in search of ways to increase or decrease a certain response, other researchers are more interested in discovering why individual A tends to be more persuaded than individual B by the emotional ad. Hence, personality researchers put those inner psychological characteristics that both determine and reflect how a person responds to his or her environment at the center of attention (Schiffman, Kanuk and Hansen, 2008), and seek to explain why differences in these characteristics will produce different behavioral, emotional or cognitive responses to the same stimuli.
From agreeing on the contribution of personality differences to the explanation of individual behavior, to arriving at a unified theory of personality, is a journey psychologists have yet to travel. Today, there is a variety of approaches to the study of personality, but most studies of personality belongs to one of six general approaches; the psychoanalytic approach, the biological approach, the humanistic approach, the behavioral/social learning approach, the cognitive approach, and the trait approach (Burger, 2008). As is evident from the introductory paragraph, this thesis studies personality by applying a trait approach, mainly due to two reasons; First, the trait approach enables us to place consumers on a scale continuum rather than forcing them into typologies with strict assumptions that are not easily satisfied. Thus, the trait approach allows consumers to be a little bit like X, and a little bit like Y, and still their trait score will fit perfectly on the trait continuums of X and Y. Their personality differences, then, is explained by them belonging to different parts of the scales. Second, and most importantly, the trait approach is the most widely adopted approach in contemporary personality psychology, and also within the area of consumer research.

The thesis contains four papers that focus on the roles different individual personality traits play in explanatory models of consumer marketing. While consumer psychologists have acknowledged the importance of personality differences for decades (e.g. Cacioppo, Petty and Kao, 1984), the more general marketing literature has only recently
included personality traits and characteristics in models of consumer related marketing phenomena (e.g. Cooil, Keiningham, Aksoy and Tsu, 2007; Melnyk, Van Osselaer and Bijmolt, 2009). However, previous studies have typically focused on physiological consumer characteristics like gender or age (Cooil et al., 2007; Melnyk et al., 2009), or demographic variables like income and education (Cooil et al., 2007). The number of marketing studies that scrutinizes the effects of psychological personality traits is rather limited, although a few studies do exist. Still, the general knowledge is yet rather limited, and the overarching goal of the thesis is to broaden the existing body of research on the role personality differences play in explanatory marketing models.

Furthermore, while there is a large body of consumer research that scrutinize a variety of aspects connected to personality differences, the majority of these studies are related to how consumers with different personalities respond to stimulus based information (e.g. Petty, Cacioppo and Schumann, 1983). Contrary to this, the effects of personality traits on memory based information processing have yet to receive a equal amount of scientific interest, and are thus at the center of attention in the majority of studies included in this thesis. Hence, while the papers all address different aspects, they share some common underlying premises that compose the overall contribution to the marketing field. As such, the papers have grown out of a programmatic
stream of research on the importance of personality traits in explaining consumer behavior.

The four papers each focus on one specific concept that is important to marketers both from a theoretical and managerial point of view. These are the concepts of customer satisfaction, complaining intentions, attitudes towards new innovations, and customer loyalty. In addition, the papers introduce four different personality traits that are believed to moderate how the aforementioned concepts are influenced by their antecedents. To summarize and integrate the contributions of the four studies on which the papers are based, the succeeding parts of this thesis starts with a brief description of each paper’s background and basic motivation, and special attention is given to important issues related to what they share and what they do not. First, the motivation and theoretical contribution of each paper is highlighted. Secondly, the differences between the papers, and the step-by-step development in complexity and theoretical areas of scrutiny is portrayed. Succeeding this introduction to the studies in the thesis, some important issues related to the methods applied are discussed. Finally, some thoughts are offered on pathways for future research, before the four papers are presented in their current state, implying that two of them have already been published, one is accepted for publication and thus forthcoming, and one is in the third round of review. Some minor changes have been made to the papers, mainly layout wise to make them fit the university’s thesis format.
1.2 The papers

1.2.1 Customer satisfaction and the Need to Evaluate

The first paper examine how the personality trait Need to Evaluate (NES) moderates the effects benevolence, image and service quality have on customer satisfaction. The paper departs with the establishment of a theoretically derived base line model that portrays drivers of customer satisfaction, followed by arguments on how the effects of these antecedents should be moderated by the consumer’s Need to evaluate. The concept of customer satisfaction is one of the most extensively studied within the context of Business-to-Consumer (BtC) marketing, and already in 1992 Peterson and Wilson reported that the number of academic and trade articles published on customer satisfaction had passed a total of more than 15,000. Surprisingly, few studies have scrutinized how the different drivers of satisfaction will influence this concept differently depending on individual consumer characteristics. However, a few recent studies have shown an interest in these facets, but typically the scope has been to explore how demographics like age, sex, education and income, and experience based variables like expertise, moderate how satisfaction affects repurchase intentions and share of wallet (Mittal and Kamakura, 2001; Cooil et al., 2007). Hence, these studies focus on the moderating effects on the relationship between satisfaction and other dependent variables, and not on the link between satisfaction and its drivers.
In this study, we draw on existing theory when we argue that a consumer’s perception of a firm’s benevolence, image and quality will drive customer satisfaction. All these relationships are extensively studied and empirically supported in the literature, and as such the baseline model is both theoretically sound and non-controversial (Oliver, 1997; Laroche et al., 2004; Ganesan, 1994; Kirmani and Rao, 2000). Our extension of the contemporary knowledge lies in the way we model NES as a variable moderating the relationships between benevolence, image and quality, and customer satisfaction. The major theoretical argument behind this moderation is that satisfaction is basically a total overall evaluation of the experience with a firm (Johnson and Fornell, 1991), and hence there is reason to believe that the relationships between satisfaction and its drivers will vary between consumers with different tendencies to actually perform such evaluations.

Based on empirical survey data from a sample of 214 private banking customers, we test the hypothesized effects by means of a sub group procedure. The three independent variables are all found to affect customer satisfaction in the baseline model, and are thus in accordance with the hypotheses. The moderator test was based on a Chow test, and shows that benevolence only has a significant effect in the high NES group, while Image only has an effect in the low NES group. Although we did not suggest such a huge difference between the groups (significant vs. non-significant), the results support the hypotheses.
Finally, we find no difference in the effect of quality, and our last hypothesis is not supported.

These results hold some important implications for marketing theory. Primarily, they show that marketing researchers should in fact be more concerned about the boundary conditions of explanatory models that are often treated as common knowledge.

1.2.2 Complaining intentions and self-referencing

Encouraged by the positive results of the first paper, the second study aimed to scrutinize how the Theory of Trying could be applied to complaining behavior. Moreover, we model Propensity to Self-reference (SR) as a moderating variable, and suggest that the effects of the causes to complaining intentions depend on the SR-level held by consumers. While the first paper focused on the antecedents to a concept positive to a firm, the second paper has a more negative swing to it. While complaining behavior can in fact be treated as positive as it enables the firm to improve its performance (Schiffman, Kanuk and Hansen, 2008), the negative aspect of complaining is that it is caused by a below standard performance on behalf of the firm. Hence, complaining has a negative origin, but may result in positive outcomes if treated correctly by the firm (Hansen, Samuelsen and Silseth, 2008).
Drawing on Bagozzi and Warshaw’s Theory of Trying (1990), we model attitude and subjective norm towards complaining as drivers of complaining intentions. Furthermore, we argue that both frequency and recency of past complaining would affect complaining intentions, but that the consumer’s propensity to self-reference would positively moderate these relationships. There are two theoretical extensions of the original framework in these hypotheses. First, while Bagozzi and Warshaw (1990) argued that the recency of past trying was connected to actual trying and not the intention to try, we believe that the recency construct will have a direct effect on the intentional variable as well. The paper presents the arguments on which this assumption is based in more detail. Secondly, we suggest that the effects of experience based concepts like recency and frequency will depend on the degree to which the consumer in question actually employs this kind of information in his or hers evaluation of whether to complain or not.

From a theoretical perspective, we argue that consumers with a higher propensity to use former experiences as a guiding principle in current situations will be more inclined to actually let their judgment be colored by history. Hence, the suggestion is that the effect of recency and frequency is stronger for high SR-consumers than for low SR-consumers.

A sample of undergraduate business students participated in the study, which was conducted in two phases. First, camouflaged as a completely different study, the measures on SR were included in a survey that also
contained questions on a number of other unrelated topics. A couple of
weeks later the same respondents participated in a second survey where
we initially induced a negative mood, or complaining mode, caused by
an unjust service situation where complaining would be an option.
They were then asked to answer a collection of questions related to
attitudes, responses and complaining intentions.

The data were analyzed using the same two-group procedure as
described in the previous paper, and again the difference between the
different regression estimates where tested by means of a Chow-test.

The research documented that customers’ propensity to complain
systematically differed as a function of their level of self-referencing.
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models like the theory of trying can be fruitfully addressed through the
notion of individual differences. The research documented that
customers’ propensity to complain systematically differed as a function
of their level of self-referencing. This is both good and bad news to
managers. The good news is that a proportion of the customers rely less
on their previous experiences in the complaining domain when they
form intentions to complain. The bad news is that some others do. The
obstacle is that managers cannot tell by the look if they are talking to an
individual with high or low propensity to self-reference. As the
customer base contains both types, care could be taken in designing
marketing communication campaigns that target the groups differently.
Our study provides new and additional insights in the drivers of complaining by also taking dispositional personality differences into consideration. The results demonstrate that boundary conditions for main-effect models like the theory of trying can be fruitfully addressed through the notion of individual differences.

1.2.3 Attitudes toward innovations and Optimum Stimulation Level
While the first two papers focused on experience based phenomena like overall customer satisfaction and perceptions of a service failure, the third paper introduces a situation that are somewhat different, yet fairly common to most consumers. Here, we wanted to test how a theoretical model explaining attitudes towards a new service innovation could be extended by the inclusion of concepts borrowed from personality theory. This paper simultaneously examines how a set of common key drivers of consumer attitudes affect consumers’ attitude toward time share second homes, and how these effects is moderated by the personality trait Optimum Stimulation Level (OSL). We chose this context and these variables for several reasons. First, we wanted to introduce a moderating variable in a model that is common in the field of marketing, yet conceptually different from the ones studied in paper 1 and 2. In contrast to the previous studies, the focus of attention was now on a situation where consumers had little or no experience with the topic at hand. However, the innovation was one they had heard of, but not used themselves. Hence, the concept under study was consumer attitudes towards an innovation for which they had developed an
attitude based on secondary sources of information, like newspaper articles and the likes.

Second, we wanted to test the moderating effects of a personality trait that is less related to information processing that NES and SR, and more associated to behavior. According to Raju (1980), OSL is “a property that characterizes an individual in terms of his general response to environmental stimuli’. Being introduced in psychology in the mid-fifties, the concept describes how an individual will seek environmental stimuli if the current stimulus level is below optimum, and avoid such stimulation if the current level is above optimum. As different consumers hold different levels of what is the optimal amount of stimulation, OSL might well be said to be a personal stimulation regulator. Hence, OSL differs from both NES and SR in that OSL regulates the degree to which consumers will seek or avoid stimuli, while the two others portrays how consumers’ will differ in their cognitive response to stimuli. This conceptual difference was one we wanted to introduce in our third study.

Finally, we wanted a variation in the kind of empirical relationships to be moderated by the personality trait at hand. In both study 1 and study 2, the models tested positive moderations of positive relationships. In this third study, a more comprehensive model was to be tested, where the base line model included variables that were expected to be both negatively and positively related to attitudes, while the moderating
effect of OSL was argued to both increase and decrease the strength of these relationships. Hence, relative advantage, value and knowledge were hypothesized to positively affect attitudes towards the innovation, while perceived risk was argued to have a negative effect. Then, OSL was presented as a moderator that would positively influence the effects of both value and risk on attitudes, while it would negatively influence the relationship between knowledge and attitude.

To test these assumptions, survey data were collected from a random sample of 175 consumers. The analytical tests followed the same procedures as described in paper 1 and 2.

The findings support the main thesis that effects of the drivers of consumer’s attitudes toward Time share concepts depend on the OSL-level of consumers. That is, effects of value perception, risk perception, and knowledge possession appear indeed to be different for Low and High OSL consumer groups. Value perception seems to be more important for High OSL consumers whereas risk perception and knowledge possession play a more salient role for Low OSL consumers.

The results of our study holds important implications for both theory and practice, and the brief version of our detailed discussion in the papers suggests that marketers should be aware of OSL-differences both when designing new products and services, when working on their
communication material, and in their market segmentation processes. Moreover, marketing researchers should be aware of the potential impact OSL can have on the cause-effect relationships in models of consumer behavior.

### 1.2.4 Customer Loyalty and Need for Cognition

The fourth and final paper in the thesis extends the previous papers in several ways, and also extends the current body of knowledge on B-t-C relationships. First, testing how Need for Cognition (NFC) moderates the effects of satisfaction, value, image, and credibility on customer loyalty, we seek to understand how consumers differ in using memory-based information about a service provider when forming behavioral intentions towards that service firm. As mentioned in the description of paper 1, previous research has primarily focused on how consumer demographics moderate satisfaction-loyalty links. In this study we include additional drivers of loyalty, and assess moderation by a personality trait (NFC) not previously used in satisfaction-loyalty research.

Second, previous studies where NFC has been modeled as a moderating variable have typically been focusing on situations where consumers are exposed to some kind of information processing task, e.g. an evaluation of an advertisement (e.g. Petty, Cacioppo and Schumann, 1983). Hence, the typical NFC study is a study of stimulus based choice based on bottom-up or molecular strategies (Lynch and Srull,
In this study we model NFC as a variable moderating the mechanisms within a memory-based evaluation, and in that respect we argue that the previous applications of NFC to the study of consumer behavior has been to shallow. As will be seen, the results support this idea.

Finally, we chose to apply a more advanced test method in this paper than employed in the three first ones. Thus, we tested the hypotheses by means of survey data from customers of retail banks, and applied two-group analysis using structural equation modeling (SEM) to test the moderating effects of NFC.

In the customer loyalty literature, some previous research has focused on how consumer demographics moderate satisfaction-loyalty links. In this fourth paper we include additional drivers of loyalty, and assess moderation by a personality trait (NFC) not previously used in satisfaction-loyalty research. To develop more effective customer strategies, both researchers and practitioners need to understand how different types of consumers attend to and utilize information when forming behavioral intentions. The standard practice of surveying customer satisfaction and loyalty typically requires the consumer to make a memory-based judgment, which is at the core our attention in this study.
We tested the hypotheses by means of survey data from customers of retail banks, and applied two-group analysis using structural equation modeling (SEM) to test the moderating effects of NFC. Satisfaction affects loyalty more strongly for high than for low NFCs. Image is insignificant in both groups. Value positively affects loyalty for low NFCs, but not for high NFCs. Credibility has an effect for low NFCs, but not for high NFCs.

The results of this study indicate that to develop more effective customer strategies, both researchers and practitioners need to understand how different types of consumers attend to and utilize information when forming behavioral intentions. The standard practice of surveying customer satisfaction and loyalty typically requires the consumer to make a memory-based judgment. Our results indicate that consumers’ dispositional tendency to think and elaborate (more or less) can bias such survey results if not taken into consideration.

1.3 Some methodological comments

The four papers in this thesis all have (at least) one thing in common – they scrutinize how personality traits moderate the causal relationships in the models to which they are incorporated. Hence, an important methodological consideration facing all the papers are the procedures chosen to test the moderator effects. This paragraph will outline this in some more detail than the descriptions offered in the papers.
According to Baron and Kenny (1986), a moderator is a variable that affects the direction and/or strength of the relation between an independent/predictor variable and a dependent/criterion variable. A moderator can further be classified as either being qualitative (e.g. sex, race, class) or quantitative (e.g. level of reward), and in this thesis all moderator variables are quantitative, for example level of self-referencing or optimum stimulation level. In the previous discussion of the thesis’ contribution, a point has been made on how previous studies have often used demographics like sex and education as moderators. These, obviously, are all qualitative variables.

As known from basic measurement theory, both independent variables, moderator variables and dependent variables can be measured at different levels, and the appropriate statistical test of moderation will differ according to the level of measurement. The procedure applied in the first three papers is one where the independent variables are continuous, while the moderator is initially measured on a continuous level but then recoded into a categorical variable (high/medium/low group) based on the respondents’ score on the moderator measures. This implies that the actual moderation test is performed with categorical moderator variables. According to Sharma, Durand and Gur-Arie (1981), one way to identify the presence of moderating effects is to test whether the form of the relationship of the classic validation model is different across subgroups, and typically, the equality between regression equations is tested by means of a Chow-
test or similar. The Chow-test (1960) is a procedure where the
dependent variable is first regressed on the independent variables with
data from the total sample, and in our studies the typical regression
equation would be

\[ Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \ldots + \beta_i X_i + \varepsilon \]

The same model is then run again, this time using the observations
from the subgroups separately. Hence, the more subgroups the more
regressions have to be estimated. In our analysis, we have employed the
high and low groups for the moderator variables, and hence we run
three regressions (in the total sample and in the high and low groups).
Based on these model estimations, the Residual Sums of Squares from
all regressions are incorporated in a Chow-test to evaluate whether the
coefficients are statistically different between the sub-groups. Stated
formally, this procedure tests whether the parameter estimates in the
linear regression models are equal, and the test statistic is estimated as

\[
\frac{(RSS_{BS} - (RSS_H + RSS_L))/k}{(RSS_H + RSS_L)/(N_H + N_L - 2k)}
\]

where \( RSS_{BS} \) is the residual sums of squares for the regression model
run on data from (in this example) both subgroups, and \( RSS_H \) and \( RSS_L \)
are the residual sums of squares from the High and Low groups regression models, respectively. \( N_H \) and \( N_L \) are the number of observations in each of these groups. Finally, \( k \) is the number of parameter estimates in the model. The test statistic follows an F-distribution with \( k \) and \( N_{BS} - 2k \) degrees of freedom (\( N_{BS} \) is equivalent to \( N_H + N_L \)).

The moderator effects are tested by means of this procedure in papers 1, 2 and 3, both because it is a test method commonly applied within both economics, marketing and consumer behavior (e.g. Kohli, 1989; Bhagat and Williams, 2008), and because regression analysis is not hampered with the same deficiencies as the often used correlational analysis are (Baron and Kenny, 1986).

In paper 4, we first employed a sub group procedure equal to the one described above, and the followed this up with a two-group analysis in LISREL. Briefly described, to test for moderation in LISREL, we first estimate the structural model with fixed parameters, then free the structural parameters so that the low and high groups are estimated independently, and then compare the fixed and free models. However, this analysis showed no significant difference between models; thus the low and high groups have identical structural relationships. This was problematic for the interpretation of the moderating effect of NFC. To have clear statistical support for the moderating effect, the chi-square
difference tests should be significant. However, given that the sample size falls well below generally accepted levels for LISREL, the insignificant differences were not surprising. Instead, we rely on the t-tests of the individual structural parameters to determine the presence of moderation.

In conclusion, the procedures used to test the moderating effects in all four models are ones that are extensively described and employed in previous marketing and consumer studies. In addition, the complexity of the test procedure is increased between the first three and the final study, without that having an impact on the results. This should imply that the procedure chosen is both based on a sound statistical foundation, and that the results hold when tested with more advanced procedures (like we do in paper 4).

1.4 Some thoughts on future research

The four papers included in this thesis are all based on survey research, and they are all treated as an extension of some of the most typical models in the area of consumer marketing. Hence, each paper contains hypotheses on how one selectively chosen personality trait moderates the causal relationships in the model. However, in real life consumers’ behavior differ due to variations on a number of such traits, and the snapshot pictures given in the four papers in this thesis does not answer all of the questions that can be addressed with respect to each of the models. A programmatic stream of future research would be able to
establish detailed pictures of which, and how, personality traits actually facilitate or impede the mental and behavioral processes on which consumer behavior rests, thus enabling marketing managers to develop more personalized and effective marketing programs.

A second area for which future scrutiny would be fruitful, is related to the data collection methods applied in the four papers. In research on B-t-C relationships, survey research is to a large extent the dominating technique found in academic papers. This is especially true for research on ongoing relationships between consumers and their brands, and consumers and their service providers. On the contrary, consumer research on how personality traits affect decision making, preference formation or attitude change has primarily been experimental. Both of these methods have some pros and cons of which researchers should be aware. First, survey research enables the researcher to tap into memory based information stored in the consumers’ long term memory, and by so doing test how differences in top down processes can be attributed to variations in personality. For the studies included in the thesis, this as a primary concern given the fact that important concepts under study is experience based variables like customer satisfaction, consumer attitudes, customer loyalty, and perceptions of a firms image and benevolence, to name a few. Hence, to enable a valid empirical test of the latent variables and relationships in question, survey research is a technique both suitable and methodologically sound.
Why, then, does consumer researchers often apply experiments in their studies on moderators of consumer behavior? There are several reasons, of which one is of particular importance here. In the typical experiment on how a personality trait moderates an effect in a theoretical model, researchers will usually measure the subjects’ personality trait scores on one point in time ($t_1$), and then run the experiment on some later point in time ($t_2$). Whether $t_1$ and $t_2$ is minutes, hours, days or weeks apart does not really matter, as one characteristic related to personality is that it is consistent and enduring (Burger, 2008; Schiffman, Kanuk and Hansen, 2008). Between $t_1$ and $t_2$ the researcher can allocate the subjects to experimental cells based on their score on the personality trait continuum. Thus, when exposing subjects to the experimental stimuli, the researcher are in full control of the methodological setting, and can administer treatments according to the hypotheses the study is testing. This possibility does not exist to the same degree for survey based research, which implies that the allocation to high and low groups on the personality variables is usually done subsequent to data collection instead of prior to it. Future research will benefit from combining experiments and surveys to tap both memory based information and personality differences at $t_1$, and then expose subjects to stimulus based information at $t_2$ (see e.g. Hansen, Samuelsen and Lorentzen, 2004). Future research would benefit from such a triangulation of methods, given that the research question at the center of attention is one where such a procedure is applicable.
1.5 The papers’ present status.


The second paper, ”Trying to Complain: The Impact of Self referencing on Complaining Intentions” was co-authored with Bendik M. Samuelsen and Tor W. Andreassen, has been published electronically on the journal’s webpage, and is forthcoming in the International Journal of Consumer Studies.

The third paper is titled ”Optimum Stimulation Level and Consumer Attitudes Toward Time Share Second Homes” and was co-authored with Mehmet Mehmetoglu. The paper was published in the Journal of Vacation Marketing, 15(4), 335-347, 2009.

The last paper was co-authored with Bendik M. Samuelsen and James E. Sallis and is currently in the third round of review for the European Journal of Marketing. The paper is titled ”The Moderating Effects of Need for Cognition on Common Drivers of Customer Loyalty”.
1.6 References


2 PAPERS

1) Antecedents to Customer Satisfaction with Financial Services: The Moderating Effects of the Need to Evaluate.

2) Trying to Complain: The Impact of Self-referencing on Complaining Intentions.

3) Optimum Stimulation Level and Consumer Attitudes Toward Time Share Second Homes.

2.1

Antecedents to Customer Satisfaction with

Financial Services:

The Moderating Effects of the Need to Evaluate.

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2.2

TRYING TO COMPLAIN:
The Impact of Self-referencing on Complaining Intentions

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TRYING TO COMPLAIN:
The Impact of Self-referencing on Complaining Intentions

ABSTRACT

This paper introduces the Theory of Trying to complaining behavior, and argues that complaining intentions can be explained by the model. Moreover, we model Propensity to Self-reference (SR) as a moderating variable, and suggest that the effects of the causes to complaining intentions depend on the SR-level held by consumers. A sample of undergraduate business students participated in the study, where the goal was to get a better understanding of complaining intentions. Our study provides new and additional insights in the drivers of complaining by also taking dispositional personality differences into consideration. The results demonstrate that boundary conditions for main-effect models like the theory of trying can be fruitfully addressed through the notion of individual differences.

The research documented that customers’ propensity to complain systematically differed as a function of their level of self-referencing. This is both good and bad news to managers. The good news is that a proportion of the customers rely less on their previous experiences in the complaining domain when they form intentions to complain. The bad news is that some others do. The obstacle is that managers cannot tell by the look if they are talking to an individual with high or low propensity to self-reference. As the customer base contains both types case could be taken in designing marketing communication campaigns that target the groups differently.

Keywords: Consumer complaints, Trying to consume, self-referencing, personality differences,
TRYING TO COMPLAIN:
The Impact of Self-referencing on Complaining Intentions.

A fairly recent multi-country study (TMI 2001) reported that more than 55 percent of dissatisfied customers complained only sometimes or never. These results corresponds to early review’s of the (dis)satisfaction literature, which suggested that the majority of dissatisfied customers do not complain (TARP 1986; TARP 1979). Other studies (see for example Andreassen, 1997; Best and Andresen, 1977; Day et al., 1981; Francken, 1983; Rust and Keiningham, 1992; Warland et al., 1975), have concluded that to “do nothing” instead of complaining was an option chosen by between 29 percent of the respondents (Francken, 1983) and 68 percent of the respondents (Andreassen, 1997). Hence, regardless of the increases in consumer rights and consumer power witnessed over the past decades, most dissatisfied consumers still do not seem to complain very often.

From a managerial perspective dissatisfied customers may exit (Hirschman, 1970) or change patronage (Keaveney, 1995), causing an eroding retention rate and reduced customer equity (Rust et al., 2000). In fact, customer defection may have a stronger impact on the bottom
line than scale, market share, unit costs, and other factors usually associated with competitive advantage (Reichheld and Sasser, 1990). However, faced with a large proportion of dissatisfied non-complainers there is little the firm can do in order to recover from the failure and thus protect future cash flow, at best these customers will be silent defectors.

In the literature four dominant aspects are suggested as reasons to why dissatisfied customers do not complain: cost-benefit judgments (Bearden and Oliver, 1985), attribution processes (Folkes, 1984), powerlessness (Bunker and Ball, 2009) and differences with respect to personality traits (Harrison-Walker, 2001; Singh, 1990). In this paper, we combine Bagozzi and Warshaw’s (1990) Theory of Trying with insights from psychological trait theory to moderate the relationships between complaining intentions and the causes to these intentions. To the best of our knowledge, this has never been done before within the field of customer dissatisfaction and recovery management. Our contribution is threefold. First, as complaining behavior is goal directed and performed to reach a desirable goal (Singh and Wilkes, 1995), we initially present a base line model explaining the mechanisms of complaining behavior that encompasses this basic assumption. We argue that the Theory of Trying (Bagozzi and Warshaw, 1990) satisfy this request. Specifically, we argue that four concepts central to the Theory of Trying are of special interest –consumers’ Attitude towards complaining, Subjective norm towards complaining, past Frequency of
complaining, and Recency of past complaining behavior. Thus, our baseline model postulates a direct effect from these variables on consumer complaining intentions.

Second, previous consumer research suggest that individual personality differences might have significant contributions to our understanding of consumer behavior (e.g. Cialdini et al., 1995; Hansen and Sand, 2008; Haugtvedt et al., 1992), and thus arguably also to consumer complaining behavior. Individual differences describe dispositional individual traits, and as such, they tend to serve as moderators of effects in more comprehensive frameworks (Haugtvedt et al. 1992), e.g., by moderating main-effects in the Theory of Trying. Third, we extend our Theory of trying derived model by introducing the consumer’s Propensity to Self-reference (SR) as a variable moderating the effects hypothesized in the base line model. Self-referencing can be conceived of as the process of relating a specific object (i.e product, information) to the self-structure, or aspects of it (Burnkrant and Unnava, 1995; Meyers-Levy and Perrachio, 1996; Sujan et al., 1993). The self represents a highly complex, well-organized memory structure (Escalas, 2007; Greenwald and Banjai, 1989) that also encompasses earlier complaining experiences. Studies in psychology have demonstrated that self-referencing enhances learning and recall of information (see e.g., Escalas, 2007). Propensity to Self-reference captures differences between consumers’ tendency to relate the judgment and interpretation of a specific stimulus to one’s own
previous experiences. So, when experiencing a service failure that calls for a complaint, a high SR consumer will actively relate information about the service failure to his or hers own previous complaining strategies and their outcomes. The central proposition in the current paper is that the effects of recency and frequency of past complaining behavior on future complaining intentions are moderated by the consumer’s level of SR. We do not however, expect similar moderation of the effects of attitude towards complaining and social norms.

The succeeding parts of the paper starts out with a brief introduction of the Theory of Trying, and how concepts central to the theory are adapted to complaining behavior. Next, we discuss how the hypothesized effects will be moderated by consumers’ Propensity to Self-reference. The hypotheses are then tested with data collected from 422 consumers, and the empirical results presented. Finally, theoretical and managerial implications are offered.

THEORY OF TRYING, SELF-REFERENCING AND COMPLAINING BEHAVIOR

The Theory of Trying is an extension of the theories of goal pursuit and planned behavior (Bagozzi and Warshaw, 1990), as it also incorporates past actions as predictors of future behavior, in addition to attitudinal and normative variables. Specifically, attitude toward trying and social norm toward trying are accompanied by the recency and frequency of
past trying to explain both the consumer’s intention to try, and actual trying (e.g. to consume). Since its origin in 1990, the theory has been successfully applied to different areas of consumer behavior, i.e. to prosumption behavior as late as in 2008 (Xie et al., 2008). A central premise of the Theory of Trying is that a variety of behaviors undertaken by consumers are considered problematic, as they might be hampered by both internal and external concerns. In other words, the concept of “trying” refers to situations where the consumer is striving to perform “difficult” behaviors (Xie et al., 2008). In everyday life, we know that many people try to lose weight, try to stop smoking, try to exercise more, and so on. In these examples refraining from something is not the ultimate goal. Getting to a better health may be. Drawing on Bay and Daniel’s (2003) discussion of the hierarchy of goals, we may argue that exercising is a goal that exists on the program level. This implies that the goal is reached by performing specific actions, or by following a given program. However, obtaining a better health condition is a higher level goal, and can arguably be labeled a principles goal. This implies that the goal itself does not “produce direct action, but forms the basis for determining what that action will be” (Bay and Daniel, 2003; 672). Stated differently, the higher level (principles) goal of a better health affects the lower level (program) goals, and to reach the higher level goal the individual has to obtain the goals defined at the lower level. We suggest that voicing a complaint might in fact be considered in the same way. Whereas the act of complaining is an intermediate, program level goal, obtaining justice or
a new service delivery may be the final principles goal. In our thinking, this makes the theory of trying ideal to the study of complaining behavior. First, from an emotional point of view, voicing a complaint implies that the consumer claims that either a person or a firm did not perform as promised. Such a proclamation is often considered emotionally demanding and can equally often be perceived as a personal disapproval of another individual’s accomplishments. To claim that someone did not deliver as promised is inherently equal to accusing someone of not keeping their word; a statement that has to be supported by some kind of verifiable evidence if the consumer is not to be considered unreasonably resentful. The simple fact that a complaint is negative in its origin implies an evident potential of hurting the receiver’s feelings, and thus his or her self image. Hence, voicing a complaint may feel as deliberately insulting another person, which is often both problematic and unpleasant. Importantly, this implies that reaching the higher level goal requires some kind of (emotional) sacrifice on a lower level in the hierarchy of goals.

Second, not all complaints are justifiable, and although the evidence of a product malfunction or service deficiency may seem rather convincing, consumers always face the risk of having neglected an aspect important to the product or service. Hence, from a more instrumental point of view the mental cost-benefit equation held by a consumer with respect to complaining in general might serve as an internal impediment to complaining behavior. The complaint itself
represents a cost (at least with respect to time and emotions), and the prospect of success is often associated with uncertainty, rendering the customer uncertain whether complaining “is worth it”. Finally, in a consumer-firm relationship the former is usually the novice and the latter the expert. The fear of being ridiculed or brushed off by skilful counter arguments probably discourage the consumer from voicing his or hers complaint, even if s/he has a watertight case. Stated differently, the possibility of losing face is arguably emotionally unpleasant, and a number of consumers therefore find complaining psychologically unpleasant or difficult.

Drawing on these basic assumptions regarding the applicability of The Theory of Trying to consumer complaining behavior, four of the variables central to the theory constitute the structure of our baseline model. In line with Bagozzi and Warshaw’s original model (1990), we suggest that a consumer’s attitude towards complaining, the social norm towards complaining and the frequency of past complaining behavior will increase the intention to complain. Moreover, while in the original model the recency of past trying was connected to actual trying and not the intention to try, we believe that the recency construct will have a direct effect on the intentional measure as well. Although we acknowledge the arguments presented by Bagozzi and Warshaw (1990) regarding the availability and anchoring/adjustment biases recency might induce on an intentional measure, we believe that recency contributes independently to the prediction of complaining intentions.
First, as Bagozzi and Warshaw also points out, the availability heuristic posits that predictions of future behavior will be affected by how available past instances of such behavior are in the consumer’s memory (Tversky and Kahneman, 1974). And as recent occurrences are more available than earlier instances, these will be given more weight in the formation of behavioral intentions. Bagozzi and Warshaw (1990) make a convincing argument on the necessity of excluding an availability effect potentially biasing the intention construct, for example through the influence recency probably has on expectation of success and expectation of failure – both predecessors of attitude toward trying. However, none of these expectational measures are included in our model, and we thus find reason to believe that this question is unproblematic in the current study. Moreover, Bagozzi and Warshaw (1990) were explaining actual trying, and as such they were interested in the individual effects the different parts of the model had on actual trying. Our focal dependent concept is complaining intentions, and therefore we wish to test how recency influences this dependent variable.

According to Mattila and Wirtz (2004), the negative emotions commonly encountered with service failures signal a strong need for coping strategies. In general, consumers can choose between two such strategies; problem-based or emotions-based coping (Folkman and Lazarus, 1988). While a problem based strategy aims at resolving the situation and/or achieving a service recovery, an emotions-based
strategy will to a larger extent include indirect actions aimed at reducing emotional discomfort (Mattila and Wirtz, 2004). While one may argue that recency of past behavior is less likely to affect future behavior that is emotionally driven (as this kind of behavior is sparked by feelings and not cognitive judgments), we will argue that complaining intentions as studied here are equal to a problem-based coping strategy, and that such strategies may in fact be related to the recency of performing similar behaviors.

Second, consumers might have a recent complaining experience without having a particularly extensive history as a “complainer” (i.e. low frequency). Hence, the availability of past experiences might not be very solidly imprinted in memory if complaining experience is rather limited. Equivalently, although frequency in general is rather high, recency might be rather low. For example, a particular consumer may have complained extensively over a period of time about a phone bill that was way too high. As such he or she has experienced months of irritation due to a service deficiency (i.e. high frequency). However, this matter may have been settled some time ago (i.e. low recency), and the issue no longer in the consumer’s top of mind. Bagozzi and Warshaw (1990) empirically tested their model in a context of weight loss, and their recency measure focused on trying to lose weight during the past week. However, complaining occurs rather incidentally, because one cannot foresee future incidents that might trigger complaints. Accordingly, the consumer’s opportunity to purposively
plan for complaints is quite different from that of planning to lose weight. Therefore, the effect biases previously discussed and the explicit recency effects are arguably stronger in the context used to test the original model than the one in focus here.

The key question in this study is how the propensity to self-reference moderates the effects outlined in our base line model. Recall that SR is a dispositional personality characteristic that portrays differences between consumers as to the likelihood of relating a specific stimulus to past experiences. The past experiences might have occurred rather frequent and rather recent, or they might in fact have happened infrequent and at some point back in time. However, to self-reference one naturally need some kind of reference, and experience information available in memory is the central concept on which the effects of SR rests. Stated differently, one might argue that contrary to Bagozzi and Warshaw (1990) our study depends on a situation where the availability bias might materialize, as available information is a necessary condition for effective SR. Of special importance to our study is that SR seems to need a certain level of motivation to be activated, and that negative mood is one way to trigger this motivation (Bosmans et al., 2001). Intuitively, service failures should have a negative effect on the consumer’s mood, and thus service failures are situations that might serve as initiators of SR processes. Hence, we find reason to believe that SR will influence the consumer who is exposed to a service failure. A low SR consumer should utilize own experiences in this process to a
lesser extent than the high SR individual. Consequently, past complaining behavior might be less indicative for future behavior for the low compared to high SR consumer. This would hold even though they could share similar complaining histories. We hypothesize that the effects of both frequency and recency of past complaining on complaining intentions will be higher for consumers with high levels of SR than for consumers with a lower SR level. In other words we posit that the effects of frequent and recent complaining experiences will be larger for consumers inclined to actually employ experience information stored in memory (high SR) than for consumers less predisposed to do so (low SR). Accordingly, the arguments outlined in the previous paragraphs can be summarized as shown in Figure 1 and the following hypotheses:

H1: Attitudes towards complaining will have a positive effect on complaining intentions.

H2: Social norms towards complaining will have a positive effect on complaining intentions.

H3: a) Frequency of past complaining behavior will have a positive effect on complaining intentions, and b), this effect will be stronger for high SR consumers than for low SR consumers.

H4: a) Recency of past complaining behavior will have a positive effect on complaining intentions, and b), this
effect will be stronger for high SR individuals than for low SR individuals.

The procedures applied to test our conceptual model and its corresponding hypotheses are presented in the succeeding sections of the paper.

Figure 1: Conceptual model
METHODS

Sample and Procedure

A sample of 447 undergraduate business students participated in the study as part of a course requirement. Due to incomplete data 25 respondents were removed, thereby reducing the total sample size to 422.

The data were collected in two sessions. First, camouflaged as a completely different study, respondents filled out a survey covering SR in addition to questions on a number of other, unrelated topics. A few weeks later they participated in the second session where we initially wanted to induce a negative mood, or complaining mode, caused by an unjust service situation where complaining would be an option. Here, each participant received a booklet that comprised of 1) a scenario story respondents should read, about a service delivery failure, followed by 2) a survey containing questions related to complaining behavior. In this manner we first measured the respondents’ level of SR, then some weeks later introduced them to a service failure situation most consumers would find unjust, and finally measured their attitudes, responses and experiences related to complaining. The scenario story aimed at putting the respondents into a negative mood state, and read as follows: “Imagine that you are just about to leave the city music hall after a concert with your favorite international artist. What should have been the concert event of the year for you, did not meet your expectations. To ensure you got one of the best seats in the concert hall
you booked your tickets last fall already, and paid more than 100 dollars each to get them. When arriving at the concert hall you found that your seats were not in the center as you ordered, but farther out towards one of the walls. The seats were also farther away from the stage than promised. The consequence was that you had trouble seeing what was happening on stage, and the sound quality was pretty flawed. The peak of bad experiences came when lining up to leave the concert hall, and you accidently hear someone beside you testify to how satisfied he was with the location of his seat, which had only cost him 15 dollars. You suddenly get this intense feeling of having paid a high price for a product that you did not receive. Leaving the concert hall, what you are thinking of is what to do now”.

**Measures**

When designing the questionnaires, all items measuring the constructs adapted from the Theory of Trying were based the original work of Bagozzi and Warshaw (1990). However, the items were slightly moderated to fit our research setting. To assess respondents’ SR level we employed the 8 item Propensity to self-reference scale developed and validated by Haugtvedt (1994) and Shakarchi and Haugtvedt (2004). All measures are described in the Appendix.

Face validity was pursued in a two-step pretest. First, two marketing professors assessed the measures. At this stage, not only were the two experts asked to comment on the design of the questionnaire, the
response scales employed and the ordering of questions, but an important part of their assignment was to judge whether the scales actually captured the theoretical variables in our model. Based on the comments from these reviewers some minor changes were made on the questionnaire design.

Next, ten respondents were asked to answer the questions and comment on the complexity of the scales, the wording, and the length of the survey. Of these, five were educated in the area on marketing research while the other five had no formal research training. No significant changes followed from this exercise.

**Data Analysis**

Initially, the multi item scales were validated by means of a factor analysis, followed by a Cronbach’s alpha reliability test. In this stage of the process, items with low factor loadings would be removed, as would items impeding unidimensional factor structures. Attitude towards complaining received a unidimensional solution with factor scores between 0.726 and 0.437. Cronbach alpha was estimated to 0.616. When running the confirmatory factor analysis on the eight items capturing SR, three items had to be removed to reach a unidimensional solution. The remaining 5 items received factor loadings ranging from 0.692 to 0.598, with a Cronbach alpha value of 0.783. As a factor analysis is not appropriate for testing the two item scale capturing subjective norm towards complaining, we ran a Pearson
correlation and Cronbach’s alpha instead. The estimated correlation and alpha values were 0.511 and 0.676, respectively. Finally, Pearson correlations between all independent variables were computed. Discriminant validity can be claimed if no single pair of variables is perfectly correlated within the range of random error (Andersen and Gerbing, 1988). In this case, the pair of independent variables most highly correlated was recency and frequency of past complaining, with a correlation coefficient of 0.469 (p=0.000). However, neither this nor any of the other correlations were close to violating the discriminant validity of the measures.

Descriptive statistics.
Table 1 shows the means of the independent variables for the high vs. low SR groups respectively.

TABLE 1

Differences in means between high vs. low SR groups

<table>
<thead>
<tr>
<th>Variable</th>
<th>Low SR</th>
<th>High SR</th>
<th>Sign.level</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC</td>
<td>7.39</td>
<td>7.13</td>
<td>n.s</td>
</tr>
<tr>
<td>SNC</td>
<td>6.48</td>
<td>7.23</td>
<td>**</td>
</tr>
<tr>
<td>FPC</td>
<td>1.39</td>
<td>1.58</td>
<td>n.s.</td>
</tr>
<tr>
<td>RPC</td>
<td>5.44</td>
<td>5.61</td>
<td>n.s.</td>
</tr>
<tr>
<td>CI</td>
<td>8.09</td>
<td>8.70</td>
<td>*</td>
</tr>
</tbody>
</table>

a: Attitude towards complaining scale: negative anchors, higher scores mean more negative attitude towards complaining
* p < .05
** p < .005

90
Table 1 shows no difference in attitude towards complaining between the two groups. Referring to the attitude items, it is evident that both groups tend to find complaining unpleasant in general as well as in this particular situation, and they find it likely that they will offend the recipient of the complaint. Both the intention to complain, and the subjective norm towards complaining are higher for individuals in the high SR group. However, for the purposes of this paper, the most interesting finding is that there are no significant differences in complaining frequency and recency for the two groups. In other words, as a baseline, these two groups have similar complaining histories. This represents a good baseline to test our hypothesized moderation: given the same starting point in the sense that the two groups share similar patterns of complaining experiences, these experiences should influence future complaint intentions more for high vs. low SR individuals. We now turn to the test of our hypotheses.

**Test of hypotheses.**

Basically, our hypothesized moderated effects of complaining frequency and recency would be supported if these two variables could be shown to affect complaining intentions differently in the high SR vs. low SR condition. The main effects of attitude towards complaining and subjective norm should not be subject to moderation.

Drawing on the procedure developed by Chow (1960) and previously employed in similar marketing related model tests (e.g. Kohli, 1989;
Bhagat and Williams, 2008), the moderating effects in our model were tested by means of a sub-group procedure consistent with psychometric methods. First, based on their SR-score respondents were divided into three groups of approximately the same size (± 33% in each group). Allocation to these groups ended in a High, a Medium and a Low SR score group, of which the respondents with medium SR scores were removed from further analysis to increase the contrast between the subgroups and thus also increase the power of the statistical test (Kohli, 1989). Based on the data from the total sample after this removal, we regressed the dependent variable (CI) on the independent variables attitude towards complaining (Ac), the subjective norm towards complaining (SNc), the frequency of past complaining (FPC), and the recency of past complaining (RPC). The regression results for this base line model are reported in Table 2.

We then regressed CI on the independent variables twice again, now using the cases in the two subgroups separately. Based on these model estimations, a Chow test was employed to evaluate whether the coefficients were statistically different between the two groups (Chow, 1960). This test statistic follows an F-distribution and is based on the Residual Sums of Squares of the regression models. The regression results for the two group analysis, including the F-value for the Chow-test, are presented in Table 3.
### TABLE 2

**Linear regression test of base line assumptions**
Dependent variable: CI

\[
\text{Adj. } R^2: \ 0.365
\]

<table>
<thead>
<tr>
<th>Variable</th>
<th>St. beta</th>
<th>Sign. level</th>
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<tbody>
<tr>
<td>AC</td>
<td>0.519</td>
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</tr>
<tr>
<td>SNc</td>
<td>0.014</td>
<td>n.s</td>
</tr>
<tr>
<td>FPC</td>
<td>0.354</td>
<td>**</td>
</tr>
<tr>
<td>RPC</td>
<td>0.139</td>
<td>n.s</td>
</tr>
</tbody>
</table>

*p < .05

**p < .001

### TABLE 3

**Linear regression results, two group analysis**
Dependent variable: CI

\[
\text{Adj. } R^2: \text{ High } = 0.338, \text{ Low } = 0.467
\]

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>St. beta</th>
<th>Sign. level</th>
<th>Chow -test</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC</td>
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<td>0.663</td>
<td>***</td>
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</tr>
<tr>
<td></td>
<td>High</td>
<td>0.383</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>SNc</td>
<td>Low</td>
<td>0.059</td>
<td>n.s</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>.012</td>
<td>n.s</td>
<td></td>
</tr>
<tr>
<td>FPC</td>
<td>Low</td>
<td>0.119</td>
<td>n.s</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>0.493</td>
<td>**</td>
<td></td>
</tr>
<tr>
<td>RPC</td>
<td>Low</td>
<td>0.140</td>
<td>n.s</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>0.432</td>
<td>**</td>
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</tr>
</tbody>
</table>

\[F = 2.87^*\]

*p < .05

**p < .01

***p < .001
RESULTS AND DISCUSSION

Of the four baseline assumptions derived from the Theory of Trying, only two predictors of complaining intentions are significant in the combined sample. The effect of $A_C$ is positive ($\beta = 0.519, t = 5.072$), while the effect of $F_{PC}$ equals $\beta = 0.354$ ($t = 3.343$). Hence, both hypothesis 1 and 3a are supported. Contrary to our thinking, $SN_C$ and $RPC$ do not affect $CI$ (H2 and H4a). The base-line regression model explains 36.5 percent of the variance in the $CI$ variable. The base-line regression model explains 36.5 percent of the variance in the CI variable.

Table 3 shows the results from the test of moderation. First, the Chow-test indicates that the parameter estimates of the two regression models are different as per our overall assumption of moderation. Subjective norm towards complaining is non-significant in both sub-samples, as in the combined sample. Evidently, intention to complain is more affected by the person’s own attitude than perception of normative pressure regardless of level of self-referencing. For low SRs, the only significant driver of intentions to complain is the individual’s attitude towards complaining. This is interesting, given that low SRs in this study have a complaining history similar to the high SRs.

From Table 3 we can see that hypothesis 3b is supported. $F_{PC}$ has a positive and significant effect in the high SR group ($\beta = 0.493, t = 3.174$), while there is no significant effect of $F_{PC}$ on CI in the low SR
group. Similarly, the effect of $R_{PC}$ is positive and significant in the high SR group ($\beta = 0.432$, $t = 2.792$), while the equivalent effect in the low SR group is not significant. The effects of $F_{PC}$ and $R_{PC}$ are just as important as the attitude towards complaining for the high SRs. This pattern of results suggests that high vs. low SR groups differ systematically in their formation of an intention to complain: high SRs are affected by their previous experiences whereas low SRs are not.

The basic assumption of previous studies of SR (e.g., Burnkrant and Unnava, 1995; Escalas, 2007; Sujan et al. 1993) was that high SRs tend to elaborate more on incoming stimuli when they can relate them to own experiences. The stimuli used in these previous studies were in the form of advertisements, meaning they framed the attitude object in question in a positive manner. The stimulus in our study is negative, aimed to trigger an intention to complain, not buy. Still, the pattern of obtained results is in line with those of previous studies: high SR individuals utilize their own experiences in a different manner compared to low SR individuals in response to an incoming stimulus.

In the current study, we observe similar self-reported complaining histories by high and low SRs. Still, only high SRs allow past experiences in the complaining domain to affect future complaining intentions, whereas the low SRs rely predominantly on their general attitudes towards complaining. In other words, the process of intention formation is systematically different for high vs. low SRs in the current study. In comparison with previous studies of complaining (see for example Andreassen, 1999; Best and Andreasen, 1977; Smith and
Bolton, 1998; Tax et al., 1998) this demonstrates a theoretical contribution: we gain additional insights in the drivers of complaining by also taking dispositional personality differences into consideration. The results also demonstrate that boundary conditions for main-effect models like the theory of trying can be fruitfully addressed through the notion of individual differences (c.f., Haugtvedt et al., 1992).

**IMPLICATIONS AND DIRECTIONS FOR FUTURE RESEARCH**

No matter how hard they try, even for the best companies failure is bound to happen. Previous research indicates that customers tend to voice their negative experiences as negative word-of-mouth (Anderson, 1998), rather than embarking on the emotionally challenging task of voicing to the company (Andreassen, 1997). This is a serious threat, as word-of-mouth tends to be given more weight than paid marketing communication. Consequently, it is in the companies’ interest to motivate customers with negative experiences to actively address their complaints to them, rather than to friends and family. Indeed, internet-blogs facilitate more rapid and widespread negative publicity nowadays compared to a decade ago.

As failures are bound to occur, the current research gives some indications of actions managers might take. First, they can improve service quality by for example driving out variance. Second, they can
improve their recovery skills and in the process improve dissatisfied customers’ satisfaction with service recovery. Finally, they can make it easier for dissatisfied customers to complain by for example establishing service guarantees, technology based complaining systems, etc. Improving quality is undoubtedly the most profitable option, as it would reduce the need getting involved in time consuming complaint handling and service recovery efforts.

Regardless of self-referencing, our respondents report very negative attitudes towards complaining. They perceive the act of making a complaint as psychologically unpleasant, and they resent the idea of hurting the complaint recipient’s feelings. In other words, there are severe emotional boundaries associated with making complaints. We think that this is a function of past experiences and hear-says from other complaining customers. A change in firms’ complaint handling and recovery efforts may change dissatisfied customers’ negative attitude toward complaining. The uncertainty with regard to likelihood of successful outcome from the customer point of view, serves as an additional impediment. Consequently, companies need to develop complaint-handling practices that reduce these negative emotions. They should of course train front line employees’ interpersonal skills, particularly when it comes to communication. They should understand that it is likely that the complaining customer feels the situation just as unpleasant as the front line employee does. The customer is on alert, most likely assessing the verbal and non-verbal communication
received in a rather defensive manner. Is the front line employee trying to put the blame on me? Is he neglecting me, or is he attentive to my points of view? Does he assume responsibility, or is he putting the blame on mere coincidents outside the control of the company? These are some potential thoughts that might run through the complainer’s mind. This points to how attribution takes place, or the localization of responsibility for an event (see e.g., Folkes, 1984). Basically, from the company’s point of view, this deals with the degree of empowerment given to the front line employee in addition to his or her interpersonal skills. In order to succeed with recovery, the front line employee facing the complaining customer must be empowered to make decisions on the spot. If he has to consult with a superior, time is of great importance. The company must understand that an important outcome of a successful complaint handling is customer delight that will stimulate positive word of mouth. In essence, even though the customer might be objectively to blame for the incident that causes the complaint, the company should carefully consider if they should fight their case and win the battle, just to lose the war.

A good example of very efficient complaint handling can be found at IKEA. Through their “no questions asked” policy, they have earned a reputation for open and welcoming returns and complaints. Everyone who has assembled furniture from IKEA, knows that there is an element of risk (or surprise) in that job. IKEA significantly reduces customers’ anxiety for making a complaint knowing that if you fail,
you can always return the bookshelf, bed or kitchen. To IKEA, it is much more important to keep the customer’s future business, than to recover the cost they assume by reimbursing the price paid by the customer.

Due to the rapid development of e-business, the complaint situation need not entail a face-to-face encounter, or a verbal exchange by telephone. This could of course mitigate the emotional unpleasantness associated with making a complaint, but still the company need to ensure that a) they can actually be reached, and b) that their responses are given with as little bureaucratic jargon as possible. With respect to the first point, successful e-tailing businesses make an effort in being reachable not only before, but also after a purchase has been made. Written replies to complaints will be subject to the same attribution from the customer point of view. A written “you have no case” message can rapidly find its way onto the Internet, and snowball extensively1. Again, return policies, being reachable, and having excellent communication skills are key issues to reduce customers’ negative attitude towards complaining both off- and online.

The current research documented that customers’ propensity to complain systematically differed as a function of level of self-referencing. This is both good and bad news to managers. The good

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1 Reference is made to the unhappy iMac owner who mounted a video camera on a tripod and filmed his smashing of the iMac. Afterwards he uploaded the event to Youtube.com with comments as to why he did it – bad handling of his complaints by Apple.
news is that a proportion of your customers rely less on their previous experiences in the complaining domain when they form intentions to complain. The bad news is that some others do. The obstacle is that you cannot tell by the look if you are talking to an individual with high or low propensity to self-reference. We are not suggesting that you ask them either. However, as the firm’s customer base contain both types, caution could be taken in designing marketing communication campaigns that target the groups differently. The core message should be oriented towards the company’s practice and procedures of solving complaints. To appeal to high SRs, testimonials emphasizing experiences could prove more effective, whereas low SRs should respond more to the factual content, or description of practice and procedures. The end communication objective would regardless of target group be to leave the impression of a friendly customer oriented, service dedicated, solution-minded, approachable company humanized by for example utilizing actual service employees.

**Future research**

While customer dissatisfaction, customer complaint, and recovery management have been studied at length over the years, one fundamental research remains unanswered: why do so few dissatisfied customers complain? In this paper we have introduced one aspect of personality traits (self referencing) in relation to complaining intentions. We believe that a closer focus on individual personality differences is a potentially rich avenue for future research that can
supplement the current knowledge on antecedents and consequences of service recovery. Other personality traits that can be included in, and that will probably contribute to, the service recovery research is Need for cognition (e.g. Haugtvedt et al., 1992), Need for Evaluation (e.g. Jarvis and Petty, 1996) and Optimum Stimulation Level (e.g. Raju, 1980; Steenkamp and Baumgartner, 1992). A more fine-tuned picture of the phenomena under study can be found by scrutinizing the boundary conditions of existing models by challenging their main effects through the inclusion of moderators. We suggest this to be one among several pathways for future research.
APPENDIX

Description of measures

*Attitude towards complaining.* This construct was measured with three (reversed) items that read 1) Complaining on a service is an unpleasant experience, 2) I think I would find it unpleasant to complain in this particular situation, and 3) When I complain, I think that I might offend other people. The scale was a ten point Likert type scale with anchors “Totally agree” and “Totally disagree”.

*Subjective norm towards complaining.* Two questions in a ten point semantic type format with anchors “Very likely” and “Not very likely”. The statements read 1) If you told your close acquaintances about such a deviation of quality, how likely is it that they would encourage you to complain?, and 2) How likely is it that you would follow their advise?

*Frequency of past complaining.* Single item measure reading “Generally speaking, how many times have you complained about a product or service in the past year”. The form of the scale was 1 = None, 2 = 1-2 times, 3 = 3-4 times, 4 = 5-6 times, and 5 = More than 7 times.

*Recency of past complaining.* Single item scale on the form “When was the last time you complained to the supplier about a product or service? The six alternative answers were 1 = A couple of days ago, 2 = A
couple of weeks ago, 3 = Last month, 4 = About six months ago, 5 = About a year ago and 6 = More than two years ago. In addition, respondents had the opportunity to answer “I do not remember”. As such, there were a total of seven alternative answers on this scale, and those answering “I do not remember” were removed from further analysis.

*Intention to complain.* Single item termed “In the future, how likely or unlikely is it that you will complain in such a situation?”. Answers were given on a ten point scale with anchors “Very likely” and “Very unlikely”.

*Propensity to Self-reference.* Eight Likert type statements anchored “Totally agree” and “Totally disagree”, measured on a five point scale. The eight items read as follows:

- I find that thinking back to my own experiences always helps me understand things better in new and unfamiliar situations
- I think it is easier to learn anything if only we can relate it to ourselves and our experiences
- When I read stories, I am often reminded of my own experiences in similar circumstances
- I often find myself use past experiences to help me remember new information
- I think it is easier to evaluate anything if only we can relate it to ourselves and our experiences
- I always think about how things around me affect me
- In casual conversations, I find that I frequently think about my own experience as other people describe theirs
- When explaining ideas or concepts to other people, I find that I always use my own experiences as examples.
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Optimum Stimulation Level and Consumer Attitudes Toward Time Share Second Homes

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Optimum Stimulation Level and Consumer Attitudes Toward Time Share Second Homes

ABSTRACT
This paper simultaneously examines how a set of common key drivers of consumer attitudes affect consumers’ attitude toward Time share second homes, and how these effects may be moderated by the personality trait Optimum Stimulation Level (OSL). The findings support the main thesis that effects of the drivers of consumer attitudes toward Time share concepts depend on the OSL-level of consumers. That is, effects of the three drivers of consumer attitudes (value perception, risk perception, and knowledge possession) appear indeed to be different for Low and High OSL consumer groups. Value perception seems to be more important for High OSL consumers whereas risk perception and knowledge possession play a more salient role for Low OSL consumers. Theoretical and practical implications are also provided.

Keywords
Optimum stimulation level, second home, consumer attitudes, Time share, novelty

Acknowledgements
The authors would like to thank Marion Espedal, Cecilie Grimsrud and Mariann Tjelta for supplying the data used in this study. We are also indebted to Linda Stromei for her helpful comments on the paper. The authors are listed alphabetically and contributed equally to the paper.
Optimum Stimulation Level and Consumer Attitudes Toward Time Share Second Homes

INTRODUCTION

Second homes represent a wide range of concepts referring to privately owned houses, apartments or even mobile items such as boats and caravans that function as secondary places of living.\(^1\) Second homes are part of the Nordic heritage, and accordingly, a large amount of the inhabitants in the Nordic countries own some kind of a second home.\(^2\) In Norway, a total of 22\% of the population is planning to buy their own second home (Sentio/NEF), and among these 6\% prefer a cabin in the mountains, 11\% dream of a place by the sea, and 5\% aim for a second home abroad. The relatively large interest in second homes in Norway is also supported by the number of new second homes built annually. From 2003 to 2006 the annual growth rate for new cabins varied between 17\% and 23\%, and at the end of 2007 there was a total amount of 383,000 second homes in Norway\(^2\) (Statistics Norway).

\(^2\) This figure concerns permanent second homes (e.g. cabins), and does not include trailers, caravans, etc.
A recent concept that has also contributed to the increasing interest in second homes is the idea of offering second homes on a Time share basis. The Time share concept is quite simple – you buy the right to use a second home for a specific period of time each year (e.g. week 5), and you keep this right until you sell it again. Stated differently, you are the co-owner of a second home, with a professional Time share company to organize every matter related to the estate. In Norway, such Time share concepts are now being planned at several mountain winter resorts, giving consumers the opportunity to invest a less significant amount of money and still have annual access to the recreational areas.

However, the concept of Time share has a negative connotation for a number of Norwegian consumers. Over the past few decades, a significant number of stories of fraud have made their way to the public, and especially there have been several incidents of consumers losing their money after investing in phony Time share concepts in Southern parts of Europe. Hence, the word ‘Time share’ itself has a negative ring to it, giving developers of these resorts a somewhat tougher sales job.

Given these trends, consumer intentions and historical facts, the aim of the current study is to examine a sample of Norwegian consumers’ attitude toward Time share as a second home concept. In order to achieve the study’s aim in an analytical manner, we will simultaneously examine possible effects of a set of common key drivers of consumer attitudes on the attitude toward the Time share concept, and how varying OSL-levels moderate these effects.
THEORETICAL MODEL

Given that Time share apartments in Norwegian holiday resorts have been more or less non-existent until a few years ago, this particular second home concept equals a service innovation in several ways. “While there is no universally accepted definition of a service innovation, Schiffman, Kanuk and Hansen⁴ argue that a service that has 1) been in the market for a relatively short time, or 2) been purchased by a relatively small number of consumers, would correspond to the market oriented definition of an innovation. Although a service concept like Time shared second homes has existed in other geographic markets for quite some time, the idea of time shared second homes in Norway is new to most Norwegian consumers. This implies that while the idea itself is not new to the world it is new to the market in question. Thus, it corresponds to the definition presented above since 1) the concept of Time share second homes has been introduced in Norway just recently, and 2) only a small number of consumers have tried this second home concept, primarily for second homes abroad. Hence, there is reason to believe that the adoption and diffusion process for this concept in Norway will not differ significantly from similar processes that would be observed if Time share was a new-to-the world service concept.”

Optimum Stimulation Level and the adoption of innovations

The concepts of adoption and diffusion of innovations are closely related, yet different in their theoretical domain and hierarchical level.⁴ While diffusion is defined as the process by which an innovation is
communicated through certain channels over time among the members of a social system, adoption is defined as a decision to make full use of an innovation as the best course of action possible. As such, diffusion is a more macro-oriented process where a new product’s rate and speed of diffusion in a market is emphasized, while adoption takes place when an individual consumer decides to try/buy a new product. These distinctions are important as we will concentrate on the consumers’ attitude toward adopting Time share as a second home concept, and not the diffusion of Time share apartments in the overall market. However, as the diffusion of a service depends on the consumers’ adoption of the same service, diffusion theory also holds important elements to be drawn on.

The most frequently used and cited models of new product adoption all present adoption as a process. Although the models differ somewhat in their description of the initial stages up to the point of trial or adoption, they share the process orientation as the consumer is expected to go through different phases before adoption takes place. Eventually, the final adoption decision is presented as a result of some cognitive process undertaken by the consumer.

The content of this cognitive process may take many forms; it is believably also dependent on different consumer characteristics, and typically the concept of customer innovativeness has been extensively scrutinized in previous research. In this research, we will focus on another personality trait, Optimum Stimulation Level. We find reason to believe that consumer attitudes toward the Time share concept at
hand will vary with varying Optimum Stimulation Levels (OSL). According to Raju,14 ‘OSL is a property that characterizes an individual in terms of his general response to environmental stimuli’. Being introduced in psychology in the mid-fifties, the concept describes how an individual will seek environmental stimuli if the current stimulus level is below optimum, and avoid such stimulation if the current level is above optimum. As different consumers hold different levels of what is the optimal amount of stimulation, OSL might well be said to be a personal stimulation regulator.

When relating OSL to attitudes toward Time share second home concepts, we build our arguments on two contrasting points of departure. First, recall that these Time share apartments are relatively new and innovative market offerings in Norway. This is important as previous research has shown that consumers’ awareness of innovations is different across different levels of OSL, as is the likelihood of an innovation being symbolically rejected.15 (symbolic rejection implies that a consumer rejects the innovation based solely on the idea of the product or the concept, and not based on trial or product experience). Moreover, the results of some previous studies suggest that consumers with high levels of OSL would be more interested in such new market offerings than Low OSL individuals.16, 17 Contradicting this conclusion, our second point of departure resides on other effects OSL has on consumer behavior. Stated differently, we depart from the causes of the innovative dispositions described above. OSL, being a stimulus regulator, will motivate High OSL individuals to search for variety in
their environment, given that a current environment does not supply a satisfying level of stimulation. Such variety seeking, or novelty seeking, can be found in a number of ways, of which product or service acquisition is one. However, buying a Time share second home implies that for a given period of time each year the individual is constrained to a certain environment. This, one may argue, does not correspond to the descriptions of the High OSL consumer, whose quest for stimulation is achieved through novelty seeking and exploratory behavior. On the contrary, we believe that having access to a Time share apartment offers the consumer a guaranteed period of time each year where s/he can escape from the routines of every day life, and having such a stimulation boosting opportunity should be attractive to High OSL-consumers.

Hence, theoretically OSL can be argued to influence attitudes toward the Time share concept in different ways. We will argue that instead of making a case on which each of these points of departure are most theoretically sound, an important undertaking is to actually test how OSL moderates the relationship between drivers of consumer attitudes and the attitude itself. More specifically, we assert that a set of common key drivers of attitudes (toward innovations) chosen for the purpose of the current study (relative advantage, value, perceived risk, and knowledge) are all related to attitudes toward the Time share concept, and that these effects may depend on consumer’s Optimum Stimulation Level. These relationships are depicted in the following
model (see figure 1), that is elaborated further in the subsequent section.

**Figure 1**

Conceptual model
Drivers of consumer attitudes

Relative advantage

The degree to which a consumer perceives a new product or service as superior to existing substitutes denotes its relative advantage. Related to the question of Time share second homes at Norwegian winter resorts, this implies that if the time share offering is superior to alternative second home concepts or accommodations at the winter resorts, it possesses such an advantage. Important here is that it is the subjective evaluation made by each individual consumer that determines whether a relative advantage exists. Hence, a relative advantage judgment is based on the needs and preferences of the individual consumer, and it can easily be argued that Time share second homes hold some attributes that consumers might prefer. For example, compared to apartments where reservations have to be made every year, owning a Time share apartment provides an element of stability. Moreover, the fact that a Time share company runs the resorts on behalf of all the share owners implies that the company takes care of aspects such as maintenance, redecorations, upgrading of technical equipment, etc. Thus, the consumer can spend their vacation actually being on vacation, instead of spending it on repairing the roof or painting the bathroom walls. Again, whether these are actually advantages will be judged by each and every individual consumer, but the basic theoretical idea is that the more advantageous a Time share concept is perceived to be, the more positive attitudes will be held.
toward it. Our first hypothesis simply tests this relationship in the Time share context described previously:

**H1:** Relative advantage will have a positive effect on consumer attitudes toward Time share second homes.

**Value**

The value of a product or a service offering is commonly referred to as the total sum of benefits received by the customer divided by the resources sacrificed to acquire them. The value concept has been extensively studied within the signalling paradigm, the transaction cost economics paradigm, the social exchange paradigm and combined in the political economy paradigm. Hence, it is commonly accepted both as an important feature when consumers choose among products and services, and as a driver of customer satisfaction and loyalty. In our conceptual model we have portrayed that the perception of value will influence consumer attitudes toward Time share as a second home alternative. To distinguish value from the Relative advantage concept previously described, our conceptualisation of value is focusing solely on the economic value of investing in Time Share apartments. Hence, value as it is treated here refers to the economic side of the total sums of benefits and sacrifices discussed previously in this paragraph. We will argue that isolating the economic aspects is important for the concept under study. When buying a second home like a cabin in the mountains or an apartment at the beach, the
economic worth of this property is commonly expected to increase over time. On the contrary, caravans or trailers most commonly decrease in value as they grow older. Hence, when studying second homes the investment side of the equation should be included as there are obvious reasons for consumers to take economic value into account. However, we believe that the attitudes of Low OSL individuals will be less influenced by value than their High OSL counterparts. High OSL consumers are characterised by an urge for variety, and if buying a Time share apartment constrains the needed variety seeking behaviour the High OSL individual is inclined to either rent the apartment to someone else, or to simply sell it. On the contrary, the Low OSL individual is looking for higher levels of stability and will typically have a longer time frame for his or her investment. They are typically more focused on the advantages of the apartment as a second home rather than the prospects of the apartment being a safe short time investment. Conclusively, our model presents the following hypotheses related to value:

H2a: Value perceptions will have a positive effect on the attitudes toward Time share second homes.

H2b: The positive effect of value will be smaller for Low OSL consumers than for High OSL consumers.
Perceived risk

The consumers’ perceptions of risk may take many forms and influence consumers in different ways, but generally risks of innovations are associated with either economic, physical, social or functional aspects. The basic assumption related to adoption of innovations and perceived risk is that adoption rates decrease as risk levels increase. Hence, the premise on which our conceptual model is based is that consumer attitudes toward the Time share concept will depend on the level of risk they associate with the concept, and we expect attitudes to be negatively affected by risk perceptions. However, we also find reason to believe that this relationship depends on the OSL level of the consumer in question. High OSL individuals are believed to let their attitudes be less influenced by risk perceptions than Low OSL consumers, as Low OSL individuals tend to be more risk averse. For example, Steenkamp and Baumgartner found that individuals with higher OSL were more willing to take risky choices than their Low OSL counterparts. In addition, they found that Low OSL consumers were less likely to gamble than High OSL consumers, who also gambled for higher stakes (more money involved) than the Low OSL group. Hence, based on these arguments we propose the following hypotheses:

H3a: Perceived risk will have a negative effect on consumer attitudes toward Time share second homes.
H3b: The negative effect of perceived risk will be smaller for High OSL consumers than for Low OSL consumers.

Knowledge

The literature and insights on how knowledge impacts consumer decision making are vast and varied, and range from areas of study like the actual assessment of knowledge, the effect of (subjective) knowledge on between-category selectivity, product class knowledge and information search behaviour, and consumer knowledge calibration, to mention a few. Within the field of consumer research, a distinction is usually made between knowledge that is actually stored in memory and the consumer’s belief about such knowledge. The former has been termed objective knowledge, while the latter is often called subjective knowledge. We argue that it is the subjective knowledge that will be either comforting or disturbing to the consumer, depending on the level of that knowledge. A low level of subjective knowledge might drive consumers to search for more information, while a comfortable level of such knowledge might relax the consumer and make her trust that she holds the necessary level of information and knowledge. On the contrary, a high level of objective knowledge may not be very helpful unless it is accompanied by an awareness of this knowledge level. In other words, although a consumer might know a lot about a service category, she may still feel quite insecure if she subjectively judges her own knowledge to be lower than it actually is. Hence, we focus on subjective knowledge in this study, implying that
we concentrate on the consumers’ perception of how much they know about the Time share concept. That being said, it seems obvious that our fundamental assumption is that there is a positive relationship between knowledge and attitude toward the Time share concept. Drawing on basic adoption theory, we argue that the more knowledge a consumer has about an innovation, the more extensive the cognitive schema related to this phenomenon will be. Hence, it will be considered less complex, and the easier its compatibility with existing needs and preferences can be judged. And according to Rogers, complexity and compatibility are two characteristics that influence the adoption of innovations. Furthermore, increasing knowledge levels might decrease the effects of dogmatism and scepticism on attitude formation, thereby moving the attitude in a more positive direction. Hence, drawing on these arguments we suggest that the more consumers feel they know about the Time share concept, the more positive their attitude toward the concept will be. However, we also find reason to believe that the effect of knowledge is different between High and Low OSL-subjects. We base this assumption on the premise that High OSL individuals are generally more curious of new products and services than Low OSL individuals. They are also less dogmatic, and thus inherently more open to objects they do not know that well. Moreover, knowledge acquisition prior to choice can be viewed as a risk reduction strategy. Previous research has found that High OSL consumers are more willing to take risky choices than Low OSL subjects. Transferred to our setting, this could imply that it is the attitudes of Low OSL individuals that
knowledge influences the most. Our final set of hypotheses is summarized as follows:

H4a: Knowledge will have a positive effect on consumer attitudes toward Time share second homes.

H4b: The positive effect of knowledge will be smaller for High OSL consumers than for Low OSL consumers.

**METHODOLOGY**

**Data and sample**

In order to test the conceptual model of the current study, several aspects were taken into consideration. First, to obtain a measure of consumers’ OSL level consistent with existing procedures in the personality literature, it was necessary to collect our data by means of scales and measurement items previously validated within the area of consumer research. Second, the present study addresses the moderating effects of OSL, and the procedures used to test moderator effects usually call for a higher number of subjects than tests of simpler models. Finally, the independent and dependent variables in our model can all be viewed as latent variables. They can therefore be easily measured but are somewhat more difficult to manipulate experimentally. Consequently, the data used to test the conceptual
model were collected from a random sample of Norwegian consumers who each filled out a personal survey. A total of 175 consumers participated in the study, of which 51 percent were men and 49 percent women.

**Measures**

All the independent variables were measured with multi item scales. The five items for Relative advantage were based on Murray and Schlacter,\(^45\) while the five items in the Value scale were adapted from Dodds, Monroe and Grewal.\(^46\) The four measures for Perceived risk were based on Murray and Schlacter\(^47\) and Laurent and Kapferer,\(^48\) and the three items capturing Knowledge were based on Park, Mothersbaug and Feick.\(^49\) To measure Optimum Stimulation Level we used the items in the AST-I scale earlier validated by Raju.\(^50\) The item covering Attitude toward Time share was self-constructed based on literature reviews and in depth interviews with customers. All of the scales were in a 7-point Likert type format with anchors totally agree (7) and totally disagree (1).

Face validity was pursued in a two-step pretest. First, two marketing professors assessed the measures, and the items were altered according to their comments and suggestions. Next, 8 consumers were asked to answer the questions and comment on the complexity of the scales, the wording, and the length of the survey. No significant
changes followed from this exercise. All items are listed in the Appendix.

Table 1. Factor solutions and reliability information

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<tr>
<th>Item</th>
<th>Factor loading</th>
<th>Cronbach’s alpha (variable)</th>
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<tr>
<td>Relative advantage 1</td>
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<tr>
<td>Relative advantage 2</td>
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<tr>
<td>Relative advantage 3</td>
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<td>Relative advantage 4</td>
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<td>Relative advantage 5</td>
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<tr>
<td>Value 1</td>
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<tr>
<td>Value 2</td>
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<td>Value 3</td>
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<tr>
<td>Value 4</td>
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<tr>
<td>Value 5</td>
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<td>Knowledge 2</td>
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</tr>
<tr>
<td>Knowledge 3</td>
<td>0.855</td>
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</tr>
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</table>

**Analytical procedures**

To assess the validity of the measures to be used in the regression model, we initially tested each independent variable scale by means of a confirmatory factor analysis. In this stage of the process, items with
either low factor loadings, or multi dimensional factor solutions, would lead to a removal of items. The factor solutions were satisfactory for all variables except knowledge, where two dimensions were initially extracted. After the removal of one problematic item a single factor solution was reached with factor loadings varying from 0.773 to 0.885. We next computed Cronbach’s alpha reliability measures for all the independent constructs, and the results of the factor analysis and reliability tests are reported in Table 1.

Consistent with econometric methods previously reported in marketing theory, the effects portrayed in our conceptual model were tested with a sub-group procedure. First, following Raju the 39 items capturing consumers OSL was summarized into a unidimensional construct with possible scores ranging from 39 to 273. Next, all respondents were allocated to either a High, Medium or Low group based on their OSL-score. To improve the contrast between the subgroups and thus also the power of the statistical test, the Medium group was excluded from further analysis. Using the total amount of respondents from the two remaining subgroups (n=119), the dependent variable was regressed on the independent variables according to the following model:

\[ \text{Attitude} = \alpha + \beta_1 \text{Advantage} + \beta_2 \text{Value} + \beta_3 \text{Risk} + \beta_4 \text{Knowledge} + \epsilon \]
The regression results for this base line model are reported in Table 2. We then ran the same model again twice, this time using the cases in the two subgroups separately (n=60 and 59). Based on these model estimations, the Residual Sums of Squares from all three regressions were incorporated in a Chow test to evaluate whether the coefficients were statistically different between the two groups. The test value (F-value) was 2.62, indicating that coefficients are statistically different for the two subgroups with high and low levels of OSL. All subgroup regression results are reported in Table 3.

ANALYSES AND FINDINGS

Regression analyses

The parameter estimates and t-values in Table 2 indicate that all base line hypotheses are supported, except H4a. The effect of Knowledge on Attitude toward the Time share concept is not significant in the total sample. The three other drivers are all significantly related to our dependent variable. H1 is supported as $\beta_1 = 0.408$ with a t-value of 3.58. Similarly, H2a is also supported as $\beta_2 = 0.361$ with t = 3.10. Hence, both Relative Advantage and Value
### Table 2. Linear regression results – base line model

<table>
<thead>
<tr>
<th>Variable</th>
<th>Beta</th>
<th>Sign. level(^a)</th>
</tr>
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<tbody>
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<td>Relative Advantage</td>
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<td>***</td>
</tr>
<tr>
<td>Value</td>
<td>0.361</td>
<td>***</td>
</tr>
<tr>
<td>Perceived Risk</td>
<td>0.242</td>
<td>**</td>
</tr>
<tr>
<td>Knowledge</td>
<td>0.046</td>
<td>—</td>
</tr>
</tbody>
</table>

Adjusted $R^2 = .515$

* $p<.10$       ** $p<.05$       *** $p<.01$

\(^a\) dash indicates coefficient not significant at .10 level.

### Table 3. Linear regression results – two group analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>Beta</th>
<th>Sign. level(^a)</th>
<th>Chow -test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative Advantage</td>
<td>High</td>
<td>0.486</td>
<td>**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>0.443</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>Value</td>
<td>High</td>
<td>0.364</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>0.193</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>Perceived Risk</td>
<td>High</td>
<td>-0.280</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>-0.329</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>Knowledge</td>
<td>High</td>
<td>-0.004</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>0.118</td>
<td>*</td>
<td></td>
</tr>
</tbody>
</table>

Adjusted $R^2$ for High = .526 and Low = .564

* $p<.10$       ** $p<.05$       *** $p<.01$

\(^a\) dash indicates coefficient not significant at .10 level.
perceptions positively influence consumer attitudes toward the Time share concept. Finally, the effect of Perceived risk is also significant, with $\beta_3 = -0.242$ and $t = -2.175$.

As shown in table 3, coefficients for relative advantage are statistically significant and nearly identical across the Low and High OSL groups. This finding indicates that optimum stimulation level does not moderate the relationship between relative advantage and attitude toward Time share concept.

Further, the effects of value perception on attitude toward the Time share concept are significantly different for the Low and High OSL groups (table 3). Value perception is related strongly to our attitude variable in the High OSL group, but not in the Low OSL group. This finding lends support to H2b and suggests that value perception has a significantly larger positive effect for High OSL individuals than for Low OSL individuals.

As far as perceived risk is concerned, its effect on the attitude toward the Time share concept is different for the Low and High OSL groups (table 3). Perceived risk is associated strongly with the attitudes exhibited by the Low OSL group, but not with that exhibited by the High OSL group. This finding supports H3b.

Finally, the effect of knowledge on attitude toward Time share concept is also different across the Low and High OSL groups (table 3). Recall that the effect of Knowledge was non-significant in the regression model run on the two groups combined. However, Knowledge is strongly related to the attitudes held by the Low OSL
group, but not to that of the High OSL group. This finding supports H4b and suggests that knowledge has a larger positive effect on the attitude toward the Time share concept for Low OSL individuals than for High OSL individuals.

DISCUSSION AND IMPLICATIONS

The general picture of the results supports the main proposition of the current study - that the effects of our explanatory variables depend on the Optimum Stimulation Level of consumers. This finding further confirms the proposition that Optimum Stimulation Level is a useful moderator of vacation behaviour.56

A natural implication of the relationships found in this study is that Time share businesses gear their marketing mix activities according to the profiles of High and Low OSL consumer groups. Since the main challenge of the Time share industry is to overcome a low level of perceived credibility among prospective consumers, the focus should be based on the promotion component of the marketing mix. Since the study’s findings suggest that relative advantage is nearly equally important for both Low- and High OSL consumers, Time share businesses should generally emphasize their product’s (Time share concept) advantages by comparing it to alternative offers such as hotel accommodations or buying a cabin. Such an emphasis should be incorporated both into their product catalogues and the communication mix. As far as product development is concerned, Time share
businesses could develop their augmented product\textsuperscript{57} to include extra services such as free office facilities, caretaking, etc. for their potential consumers.

As Low OSL consumers particularly require a low level of risk associated with a product, and a high amount of knowledge about it, Time share businesses should meet these requirements when promoting their product to Low OSL consumers. As knowledge has a larger effect in this group than in the High OSL group, one can assume that Low OSL individuals are more inclined to process attribute information about the alternatives at hand, thus being more open to persuasion attempts taking the central route to persuasion.\textsuperscript{58} Hence, factual information addressing issues important to the target consumer (e.g. risk) could have positive effects on the attitudes held by the Low OSL consumers.

However, Time share businesses should consider their efforts in terms of a cost-benefit ratio when promoting their Time share concept to Low OSL consumers. In some cases, Time share businesses may or should only target High OSL consumers. Less promotion efforts are arguably needed to get this group interested in a Time share apartment than the Low OSL consumers. In this case, Time share businesses should focus more on the value aspect (economic benefits) of their product and promote it to High OSL consumers. However, such a differentiated promotional strategy rests on the marketing firms’ ability to identify the High and Low OSL-consumers, and whether these can easily be allocated to actionable segments.
The preceding suggestions and comments hold an important limitation worth a few comments. When testing our hypotheses, we excluded the consumers with a medium OSL level to improve the contrast between the OSL subgroups. However, in a real world situation a marketer would have to design segmentation based strategies to target consumers of all OSL levels. As success in the consumer markets of the modern world is increasingly nurtured from a segmentation and targeting based marketing philosophy, Time share firms should pay close attention to the challenges and necessary implications that surface as natural consequences of varying OSL levels among their own target consumers. We believe the results of the present study might be helpful for marketers in their efforts to more successfully influence consumer attitudes and preferences toward Time share second homes.

In our model the effect of subjective knowledge is moderated by OSL, as the effect is significant and positive in the Low OSL group, but not significant in the High OSL group. We base our knowledge hypothesis on the assumption that knowledge consists of both positive and negative information, implying that increasing knowledge means a more detailed and balanced impression of the concept at hand. However, situations might occur where a consumer’s knowledge level is based solely on one kind of information (e.g. negative), and in these instances the relationships found in this study might not hold. Thus, one pathway for future research is to make an explicit distinction between positive and negative information, and test again the relationships
studied here. Probably, other and more precise and detailed pictures of the effects of knowledge will evolve from such a pursuit.\(^3\)

A second possibility for future research is connected to the use of personality traits in tourism research in general. A stream of research within tourism and marketing research concerns segmentation, and addressing how the relationships portrayed in generally accepted theoretical models differ across different personality based segments may offer important knowledge on the models’ boundary conditions. For example, increased knowledge on how motivational aspects related to Dark tourism or Thanatourism differ across segments may very well grow out of studies incorporating personality traits like Dogmatism, Need for Cognition, or Openness, to mention a few. Moreover, most services within the area of tourism can be classified as having a quality that is experience or credence based. How different consumer segments go about judging the quality of such services may well be found to be a function of, amongst others, their personality (for example their level of Need for Cognition). Finally, the effect of previous experience on judging the quality of an experience based service might in fact depend on the consumer’s level of Self-referencing. Conclusively, including personality traits in future research on consumers in their role as tourists might shed some light on several aspects that should be both important and interesting for the tourism industry.

\(^3\) We thank one of the reviewers for pointing this out for us.
APPENDIX

List of measures

Advantage
1) I think a Time share apartment would generally be beneficial to me, as owning one would probably function well and exceed my expectations relative to the amount of money paid for it.
2) One the major advantages with Time share apartments is the absence of maintenance costs
3) Buying a Time share apartment would be beneficial to me because my family and friends would then think more highly of me
4) Being the owner of a Time share apartment suits my self image
5) Having a Time share apartment suits my needs as it is a very convenient kind of second home ownership

Value
1) Buying a Time share apartment is very good value for the money

2) At the price commonly charged, a Time share apartment is usually a very good investment
3) Time share apartments are generally not considered good buys (r)
4) Buying a Time share apartment is a good, long term investment
5) At the price commonly charged, buying a Time share apartment often turns out to be a real bargain.
Risk
1) Buying a Time share apartment is quite risky, as I am not sure which concept would best suit my needs
2) When you buy a Time share apartment, it is not easy to make the right choice
3) When you buy a Time share apartment, it is not a big deal if you chose the wrong dealer (r)
4) All Time share concepts are associated with high levels of financial risk

Knowledge
1) Compared to my friends I know quite a lot about the Time share concept
2) Compared to an expert, I know quite a lot about the Time share concept
3) In general, I have a quite good knowledge of the Time share concept

Optimum Stimulation Level
1) Even though certain food products are available in a number of different flavors, I always tend to buy the same flavour (r)
2) I have little interest in fads and fashions (r)
3) When I eat out, I like to try the most unusual items the restaurant serves, even if I am not sure I would like them
4) I like to shop around and look at displays
5) I get very bored listening to others about their purchases (r)
6) I like to browse through mail order catalogues even when I don’t plan to buy anything.
7) When I see a new or different brand on the shelf, I often pick it up just to see what it is like
8) I often read the information on the package of products just out of curiosity
9) I am the kind of person who would try any new product once
10) I shop around a lot for my clothes just to find out more about the latest styles
11) A new store or restaurant is not something I would be eager to find out about (r)
12) When I go to a restaurant, I feel it is safer to order dishes I am familiar with (r)
13) I am very cautious in trying new/different products (r)
14) Even for an important date or dinner, I wouldn’t be wary of trying a new or unfamiliar restaurant
15) I generally read even my junk mail just to know what it is about
16) I don’t like to talk to my friends about my purchases (r)
17) I enjoy sampling different brands of commonplace products for the sake of comparison
18) I like introducing new brands or products to my friends
19) I would rather stick with a brand I usually buy than try something I am not very secure of (r)
20) I usually throw away mail advertisements without reading them (r)
21) If I like a brand, I rarely switch from it just to try something different (r)
22) I don’t care to find out what types or brand names of appliances and gadgets my friends have (r)
23) I hate window shopping (r)
24) I often read advertisements just out of curiosity
25) I would rather wait for others to try a new store or restaurant than try it myself (r)
26) I get bored with buying the same brands even if they are good
27) When I see a new brand somewhat different from the usual, I investigate it
28) I never buy something I don’t know about at the risk of making a mistake (r)
29) I would get tired of flying the same airline every time
30) If I buy appliances, I will buy only well-established brands (r)
31) Investigating new brands of grocery and other similar products is generally a waste of time (r)
32) My friends and neighbors often come to me for advice
33) I rarely read advertisements that just seem to contain a lot of information (r)
34) When I hear about a new store or restaurant, I take advantage of the first opportunity to find out more about it
35) I would prefer to keep using old appliances and gadgets even if it means having to get them fixed, rather than buying new ones every few years (r)
36) A lot of the time I feel the urge to buy something really different from the brands I usually buy
37) I enjoy taking chances in buying unfamiliar brands just to get some variety in my purchases
38) If I did a lot of flying, I would probably like to try all the different airlines, instead of flying just one most of the time
39) I enjoy exploring several different alternatives or brands while shopping

(r) denotes reversed items
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54. Kohli, ref. 51 above


2.4

The Moderating Effects of Need for Cognition on Drivers of Customer Loyalty

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The Moderating Effects of Need for Cognition on Drivers of Customer Loyalty

ABSTRACT

Purpose: By testing how Need for Cognition (NFC) moderates the effects of satisfaction, value, image, and credibility on loyalty, we seek to understand how consumers differ in using memory-based information about a service provider when forming intentions about behavior towards that service provider.

Methods: We tested the hypotheses by means of survey data from customers of retail banks, and applied two-group analysis using structural equation modeling (SEM) to test the moderating effects of NFC.

Findings: Satisfaction affects loyalty more strongly for high than for low NFCs. Image is insignificant in both groups. Value positively affects loyalty for low NFCs, but not for high NFCs. Credibility has an effect for low NFCs, but not for high NFCs.

Limitations: The limited sample size affects the power of the test methodology, even though Chow-tests of regression
models gave similar results. Further research should test the model in other contexts to enhance external validity.

**Value:**
Previous research has primarily focused on how consumer demographics moderate satisfaction-loyalty links. We include additional drivers of loyalty, and assess moderation by a personality trait (NFC) not previously used in satisfaction-loyalty research. To develop more effective customer strategies, both researchers and practitioners need to understand how different types of consumers attend to and utilize information when forming behavioral intentions. The standard practice of surveying customer satisfaction and loyalty typically requires the consumer to make a memory-based judgment. Our results indicate that consumers’ dispositional tendency to think and elaborate (more or less) can bias survey results.

**Keywords:**
Customer loyalty
Need for Cognition
Personality differences
Behavioral intentions
THE MODERATING EFFECTS OF NEED FOR
COGNITION ON DRIVERS OF CUSTOMER
LOYALTY

1.0 INTRODUCTION
The Marketing Science Institute’s (MSI) research priority list for 2010–
2012 explicitly states that companies “require conceptual frameworks
and methods that integrate the many factors that influence customer
preferences and choice over time” (MSI, 2010: 4). This requirement is
especially relevant in times of global economic uncertainty, because
companies need to maintain their customers to stay profitable in
stagnating markets. Customer satisfaction and loyalty are two key
variables with reference to preferences and choice, and consequently to
firm profitability (e.g., Cooil et al., 2007; Gustafsson et al., 2005;

The effect of customer satisfaction on customer loyalty is in its simplest
form based on the assumption that consumers rely on their own
consumption experiences (i.e., history) with and judgments of a
provider when forming their intentions of future behavior (Oliver,
1980; Yi, 1990). When consumers use information stored in memory to
make judgments, the judgment and choice task is memory-based, not
directly affected by information obtained from external stimuli like advertisements and word-of-mouth (see e.g., Park and Hastak, 1994; Rottenstreich et al., 2007). In the current research, we propose that customers systematically differ in the way they attend to and utilize information stored in memory (judgments and perceptions like satisfaction, credibility, value, and image) about a service provider when forming intentions about future behavior. We will demonstrate that consumers high in need for cognition (NFC) show systematic differences from those who are low in NFC in the way they utilize these information entities to shape future intentions (Cacioppo et al., 1996; Haugtvedt et al., 1992). In so doing, this study seeks to make both theoretical and managerial contributions. First, we show that consumers use memory-based information about the service provider differently depending on the dispositional individual difference trait NFC. Second, we show that NFC moderates four drivers of customer loyalty. Consequently, our moderator is narrower than those of previous studies (e.g., Walsh et al., 2008) still, the model is broader because we test for moderation of more loyalty drivers than merely satisfaction. Third, whereas previous studies of the moderating role of NFC have tested responses to external information stimuli (e.g., Drolet et al., 2008; Haugtvedt et al., 1992; Lagerwerf and Meijers, 2008), this study is the first to demonstrate that NFC also affects consumers’ use of internal, memory-based information when they form behavioral intentions. Managers will benefit primarily in terms of a customer portfolio and segmentation perspective: two types of customers with
equal scores on loyalty drivers do not necessarily imply similar loyalty patterns. The same treatment will not give the same effect across consumers with different levels of NFC, thus emphasizing the role of psychographic consumer characteristics in understanding customer preferences and choice. It is also likely that NFC will affect how consumers respond in customer satisfaction surveys – and relationships between variables measured – suggesting that biases might be present, which would have implications for managerial interpretation of such survey results.

In the remainder of the article we first present previous research on moderation of loyalty drivers in the business to consumer domain, before outlining the study’s baseline model. Then we introduce the moderator NFC, before turning to the methodology and empirical test of our hypotheses. The article ends with a discussion of results, implications, and limitations.

2.0 MODERATION OF CONSUMER LOYALTY DRIVER EFFECTS

Moderators provide the ability to understand the relationship between variables (Baron and Kenny, 1986; Evanschitzky and Wunderlich, 2006; Walsh et al., 2008). Specifically, a moderator is a variable that affects the direction and/or strength of the relation between an independent variable and a dependent variable (Baron and Kenny, 1986). A few studies of moderators of loyalty drivers in a consumer
context have recently been published, demonstrating the importance of identifying contingencies that moderate the well-established satisfaction-loyalty link. Unlike our study, previous research has predominantly tested for moderation of the satisfaction-loyalty link, but has rarely tested for moderation of other drivers of loyalty. Bloemer and Kasper (1995) found that elaboration concerning the satisfaction level positively moderates the effect of satisfaction on repurchase intentions in two contexts: blank audiocassettes and shampoo. Homburg and Giering (2001) found that variety seeking, age, and income moderate the satisfaction-loyalty link for consumer durables. Using the consumer automotive industry as a setting, and using demographic moderators, Mittal and Kamakura (2001) documented that gender, education, age, and number of children moderate the satisfaction-loyalty link. Shu and Yi (2006) found that the effect of satisfaction on loyalty was significantly higher for low-involvement than for high-involvement products. Evanschitzky and Wunderlich (2006) investigated the four-stage loyalty model of Oliver (1999) in the do-it-yourself (DIY) business, and found that age, income, education, expertise, price orientation, critical incident recovery, and loyalty card membership moderate links in Oliver’s model. Walsh et al., (2008) also found that similar variables moderate the relationship between satisfaction with assortment and employee on attitudinal and behavioral loyalty in the DIY context. Bove and Mitzifiris (2007) investigated how much the personality traits agreeableness, conscientiousness, emotional stability, and extroversion moderate the effects of trust, commitment,
and satisfaction on store loyalty (a transaction oriented service context). They found little evidence to support the claim that personality moderates the effects of these loyalty drivers. In a retail banking setting, Cooil et al., (2007) found that income and length of relationship negatively moderate the effect of satisfaction and share of wallet. Finally, Bruner et al., (2008) is one of the few studies to empirically test for moderation of both satisfaction and image on loyalty, with night-train transportation as the setting. They found that satisfaction exerts a greater effect on loyalty for new travelers than for experienced travelers, whereas image exerts a greater effect on loyalty for experienced travelers than for new travelers.

These studies clearly illustrate that the satisfaction-loyalty link vary across a wide set of moderators. Consumer demographics are frequently used moderators, but it is hard to draw general conclusions because results vary between settings, pointing to the likely moderating role of product and service category characteristics on the satisfaction-loyalty link (e.g., Shu and Yi, 2006).

Our approach differs from the previous studies in its choice of moderator, and in having a wider scope of moderated relationships. We propose that we can partly account for differential effects of customer loyalty drivers by considering NFC, a personality trait that capture individuals' propensity to elaborate on the judgments and inferences they make regarding objects in their environment (Cacioppo, et al.,
This proposition has some parallels to the early findings of Bloemer and Kasper (1995) that deliberation and involvement in satisfaction judgments positively moderate the effect of satisfaction on loyalty. If we consider satisfaction as an evaluative response (Yi, 1990) stored in memory, along with perceptions of the service provider’s value, credibility, and image, these four perceptions represent different chunks of information subject to elaboration (e.g., Bettman, 1979). NFC is a stable individual difference in people’s tendency to engage in and enjoy effortful cognitive activity (Cacioppo and Petty, 1982). We will argue that consumers’ NFC will moderate the effects of satisfaction, image, credibility and value and credibility on customer loyalty.

Previous research in a marketing context has demonstrated that NFC moderates the responses to external information sources like, for example, advertisements (Haugtvedt et al., 1992), in a persuasion paradigm. In the current research, we propose that differences in NFC also will affect how consumers utilize their own experiences and judgments of service providers when forming loyalty to said service providers. In other words, because the intention to stay loyal to a firm rests on an evaluation and judgment of that firm’s performance on a number of variables, we find reason to believe that the effects of these variables vary across consumers with different levels of NFC.
Below, we present our baseline model with the main effects of customer loyalty drivers; then we address how NFC moderates these main effects.

3.0 CUSTOMER LOYALTY

Customer loyalty has been extensively described and scrutinized in marketing (e.g.; Bloemer and Kasper, 1995; Chitturi et al., 2008; Evanschitzky and Wunderlich, 2006; Jacoby and Kyner, 1973; Oliver, 1999). However, there are several definitions and theoretical descriptions of both the concept and its measurement. For example, Dick and Basu (1994) describe different types of loyalty, and draw a distinction between no loyalty, spurious loyalty, latent loyalty and loyalty. According to Dick and Basu, loyalty exists if there is both a high level of repeat patronage and a high relative attitude, where the latter is a combination of attitude strength and attitudinal differentiation. Similarly, Oliver (1999) draws a distinction between four phases of loyalty – cognitive, affective, conative, and action – phases empirically tested by Evanschitzky and Wunderlich (2006). The rationale for both of these approaches is that simple repeat purchasing does not necessarily constitute loyalty, that the behavior should be rooted in something more (e.g., commitment) in order to earn the label “loyalty”. Repeat patronage without freedom to choose between alternatives would not be labeled loyalty according to the views of Dick and Basu (1994) and Oliver (1999). While this conceptualization is theoretically appealing, it also holds some limitations. First, it seems
counter-intuitive that the behaviors expected to arise from loyalty should be included in the concept’s theoretical domain. Their inclusion would make any relationship between loyalty and loyal behavior more or less true by definition. Second, including both cause and effect (i.e., attitude and behavior) within the same concept would also reduce our ability to investigate antecedents and effects of loyalty, because support or rejection of results could be attributed to either attitudinal components or behavioral components, or both. Hence, other streams of research have chosen to focus on the attitudinal part of the aforementioned description (e.g., Hansen et al., 2003; Evanschitzky and Wunderlich, 2006), or the behavioral intentions or repeat patronage (e.g., Chandrashekaran et al., 2007; Chitturi, et al., 2008; Homburg and Giering, 2001; Gustafsson et al., 2005; Shu and Yi, 2006; Zeithaml et al., 1996). These latter studies have applied different types of behavioral intentions such as intention to repurchase, or to recommend product, store or service, as representations of customer loyalty. This measurement approach does not fully predict future behavior (Mittal and Kamakura, 2001), but captures the conative part of Oliver’s (1999) conceptualization of loyalty. Finally, all four loyalty drivers we hypothesize are in their nature judgments one might call attitudinal (although not attitudes per se), so it could prove problematic to obtain a strong test of their effects on attitudinal components of loyalty. Consequently, we focus on the customers’ intentions to act loyalty to the firm, and our definition and measure of customer loyalty primarily capture the consumers’ loyalty intentions. In addition, the act of
recommending a service provider to someone the customer knows, implies a credible signal of commitment (Gundlach et al., 1995). We include this signal of commitment to complement loyalty intentions.

3.1 Drivers of Customer Loyalty
The first variable expected to drive loyalty is satisfaction. Based on Fornell (1992); Johnson et al., (1996) and Gustfasson et al., (2005), we conceptualize satisfaction as an overall evaluation of the satisfaction object based on the extent to which it has fulfilled the consumer’s service expectations over time. Hence, we focus on the cumulative satisfaction, rather than satisfaction with a specific transaction (Fornell, 1992). Fornell (1992) specifies that satisfaction is a function of the extent of confirmation/disconfirmation of expectations, an overall judgment, and the service’s distance in performance from a hypothetical ideal in the category. As a judgment of an object, satisfaction has strong parallels to an attitude towards the same object. Glasman and Albarracin (2006) documented the positive relationship between attitudes and behavior in a recent meta-analysis, and we expect similar patterns between satisfaction and loyalty intentions. Empirical support for the positive effect of satisfaction on loyalty intentions is well documented, as exemplified by the previous review of moderators of the satisfaction-loyalty link. Consequently, our first hypothesis states that:

H1: Satisfaction has a positive effect on customer loyalty.
The second variable under scrutiny in this research is *image*. Drawing on Selnes (1993) and Fombrun (1996), we define *image* as a mental representation of the firm’s perceived overall appeal compared to that of other rivals. Hence, image captures the consumer’s perception of the market’s judgment of loyalty object. Zeithaml (1988) suggests that consumers tend to use image as a shorthand for quality when they lack expertise, motivation or ability to assess the inner qualities of a service. A positive image represents an asset to the firm, and consumers often trust that the firm will not jeopardize this intangible asset by shirking on service quality (Kirmani and Rao, 2000). Because image is used as a shorthand for quality, Hansen *et al.*, (2008) argues that image has a trust-facet to it which will increase in importance as service performance becomes harder to evaluate. It is often hard to assess the intrinsic qualities of a service offering because services include a significant level of experience- and credence-based performance information (Darby and Karni, 1973; Zeithaml, 1988). In essence, the better the image, the lower the perceived risk of choosing the supplier. Due to mental processes like identification (Schiffman *et al.*, 2008), consumers may also stay with a service provider with a positive image because they identify with other customers who signal their satisfaction and loyalty to the provider in question. They may also want to be identified as customers of a brand with a particular image, and thus image can influence their decision to repurchase. Some empirical evidence also suggests that when services are hard to evaluate, loyalty
might in fact be more strongly driven by the brand’s image than by customer satisfaction (Sandvik et al., 1997). Our second hypothesis states that:

H2: The service provider’s image has a positive effect on customer loyalty.

Our next explanatory variable is the value customers associate with a specific product or service. Based on Newman (1988) and Hansen et al. (2008), we define perceived value as the benefits received by the customer divided by the resources sacrificed to acquire them. In a context of repurchasing, a standard economic assumption would suggest that any customer in need of a product or a service will return to a provider who delivers superior value for money. The definition above calls for consumers to conduct a detailed cost-benefit analysis to arrive at a precise value estimate for all available alternatives. As cognitive misers many consumers prefer short cuts (Cacioppo et al., 1996), and therefore reduce such estimates to a subjective overall perception of what alternative they perceive to provide the highest value. Stated differently, consumers are not as rational cost-benefit analysts as we might like to think (Ariely, 2008). In addition, in line with an affect referral decision rule, consumer memory often consists of an overall evaluation and rank ordering of the available alternatives, rather than of attribute-specific information related to each and every one of them (Schiffman et al., 2008). Consequently, customers will
most likely have an overall value judgment for each alternative in the consideration set stored in memory. We argue that customers’ perceived value is a perceptual judgment of the overall value assigned to a given object, for example, to the service provided by a specific company. Hence, we also suggest that there is a positive relationship between this overall value judgment and customer loyalty, and empirical evidence supports this assumption. For example, Hansen et al., (2008) found a positive effect of perceived value on word-of-mouth. They also found a direct negative effect of perceived value on the propensity to search in the market for alternative suppliers. Alternative search is directly related to loyalty, because active alternative search often signals an intention to leave the service provider. Hence, we suggest that:

H3: Perceived value has a positive effect on customer loyalty.

The last variable in our baseline model is the firm’s credibility, which is based on the customer’s belief in whether the firm can perform as promised (Ganesan, 1994). Credibility is also an important facet of Fournier’s (1998) notion of partner quality, the extent to which the consumer believes that a brand will fulfill its obligations to the consumer. For a significant number of services, pre-purchase evaluations of a specific service offering are convoluted due to the experience or credence quality it possesses. The phrase “I know what I
have, but not what I will get” applies to most situations where consumers contemplate changing to another service supplier, but feel uncertain about the alternative’s ability to perform as well as the current exchange partner. Because consumers base the credibility judgment on experiences with the service provider’s ability to deliver as promised, and to handle problems that arise, higher levels of perceived credibility should strengthen the motivation to stay with the credible partner, and decrease the attractiveness of alternatives. The decreased attractiveness should result from the fact the consumer’s experiences with alternative service providers can be hard to compare due to service intangibility (Johnson et al., 1996). Consequently, our fourth hypothesis is:

H4: Credibility has a positive effect on customer loyalty.

4.0 NEED FOR COGNITION

4.1 The conceptualization of need for cognition (NFC)

The personality trait of interest in this study is Need for Cognition (NFC). Cohen et al., (1955), conceptualized NFC as “a need to understand and make reasonable the experiential world” (p. 291), and that “stronger needs lead people to see a situation as ambiguous even if it is relatively structured, indicating higher standards for cognitive clarity are associated with greater need for cognition” (p. 292). Cacioppo et al., (1996) argue that this initial conceptualization partly
overlapped with tolerance for ambiguity and tension reduction. Cacioppo and Petty (1982) had more interest in differences in processing motivation across levels of NFC. They characterized individuals possessing low intrinsic motivation to engage in effortful cognitive processing as cognitive misers, and individuals high in intrinsic motivation to do so as chronic cognizers. Cacioppo and Petty’s (1982) conceptualization replaced that of Cohen et al., (1955) partly because all measurement instruments of Cohen and colleagues were lost. Since Cacioppo and Petty (1982), NFC is thought of as a stable individual difference in people’s tendency to engage in and enjoy effortful processing. This individual difference is not related to a need for clarity, or to consumers’ ability to process cognitively challenging information, but rather to their willingness or motivation to do so. Since this motivational tendency is dispositional, it means that high NFCs in general like to think more than low NFCs do across situations and categories.

Cacioppo et al.,’s (1996) review covered over 100 studies in psychology using the Cacioppo and Petty (1982) conceptualization documenting that high vs. low NFCs systematically differ on how they make use of information provided in a variety of message formats. None of their reviewed studies investigated use of information already stored in memory. The practice of investigating responses to external information through product descriptions and advertisements has also been followed in marketing. Previous studies from marketing contexts
have found NFC to influence consumers’ responses to message claims (e.g., Haugtvedt et al., 1992; Lagerwerf and Meijers, 2008), and the reliance of heuristics (Drolet et al., 2008) when choosing between alternatives.

4.2 NFC as a moderator of loyalty drivers

Our basic assumption is that if high NFCs differ from low NFCs in the way they process externally provided information, they would also be likely to differ in the way they process information stored in memory. Related to the baseline hypotheses presented in the previous paragraphs, we expect NFC to moderate the effects of satisfaction, image, value, and credibility on loyalty. If we think of satisfaction as a construct with close parallels to an attitude, we can assume that high NFCs will have elaborated more on their satisfaction judgment than low NFCs, an assumption also supported by the findings of Bloemer and Kasper (1995). High NFCs may also hold their attitudes more strongly than their low NFC counterparts (Cacioppo et al., 1996). Finally, because recent research in marketing has shown that satisfaction strength is important for customer loyalty (Chandrashekaran et al., 2007), we suggest that the effect of satisfaction on loyalty will be stronger for high NFCs than for low NFCs.

Recall from the definitions of the value and credibility concepts that both are individual, experience-based phenomena, while image draws
its substance from the market, then subject to be stored in memory. This implies that perceptions of value and credibility might emanate from experience-based information. Image, on the other hand, does not grow directly from experience, but essentially from interaction with others or information from external sources in the market (i.e., newspapers, TV, blogs, etc.). This further implies that image has to be processed more extensively to become diagnostic. Since high NFCs are intrinsically more motivated to do so, we suggest that the effect of image will be higher for high NFCs than for low NFCs. Further supporting this assumption is that since high NFCs enjoy thinking, they should also spend more cognitive resources on their economic relationships in general. If so, we can assume that the perceptions of value and credibility among high NFCs rest on a different judgmental base than do those among low NFCs. Elaboration Likelihood Model (ELM) research argues that high NFCs tend to process information centrally, while low NFCs process information more peripherally (e.g., Cacioppo et al., 1996; Haugtvedt et al., 1992). This holds important consequences for the questions raised in this research. First, because high NFCs are more disposed towards detailed assessments of their relationship counterparts (including their image, credibility, and the value of the relationship), they are also more inclined to encounter assessment problems due to the credence characteristics of value and credibility. Stated differently, high NFCs are more inclined to realize that of their perceptions of these three variables, their perception of image is shared by other consumers, whereas both their value and their
credibility perceptions are short of an external reference point. In such an instance, the cognitive thinker should intuitively decrease the importance of value and credibility while increasing the importance of image. Second, low NFCs are more inclined to base their perceptions on easily available or accessible information (Drolet et al., 2008), and subjective information retrieved from memory should thus be more important than information (i.e., image) that requires evaluation of both its content and its source. Consequently, the final four hypotheses are as follows:

H5: The effect of satisfaction on loyalty is stronger for high NFC consumers than for low NFC consumers.
H6: The effect of image on loyalty is stronger for high NFC consumers than for low NFC consumers.
H7: The effect of value is stronger for low NFC consumers than for high NFC consumers.
H8: The effect of credibility is stronger for low NFC consumers than for high NFC consumers.

5.0 METHOD
We collected data in a survey of private customers of Nordea, a Scandinavian financial services group. Following a methodology used by Walsh, et al., (2008), interviewers intercepted 450 customers outside five branch offices of the bank in Oslo, Norway, and asked them to fill out a questionnaire, offering no incentives. Potential respondents where
intercepted on five consecutive working days in a week, covering opening hours from morning to evening. All five branch-offices were visited on each day. A total of 214 agreed to participate, 56.5% males, mean age 33.2 years. They were interviewed before they entered the bank because it was felt that data obtained from respondents upon their leaving the bank would be influenced by their most recent interaction (a critical incident). Total interview time was less than 10 minutes.

The retail banking industry has several qualities with respect to the data needed to test the model under study. First, image effects are more likely to arise as services move from search, via experience, to credence (Rubin, 1993). In other words, when customers find it increasingly difficult to evaluate the value and quality of a given service, the importance of the bank’s image should increase (Hansen et al., 2008). Moreover, because both image and value are concepts included in our model, retail banking is a context where these variables possess the minimum level of variance needed to study the relationships. Second, the study includes the effects of image in a relational context. In retail banking, the customers have had at least some initial experiences with the service provider, which should penalize the effects of image, thus putting the conceptual model to a stronger test. Finally, retail banking is a highly competitive service category, with a combination of older well-known actors and newly established companies, all competing in delivering a relatively comparable core service. However, the concept of credibility requires a
minimum of personal interaction between customer and service employee, because a consumer’s self-reported credibility level is based on his or her perception of the employee’s ability to deliver as promised. Since the relationships between consumers and banks are usually of a length that allows (dis)satisfaction to develop, the banking industry also satisfies the considerations mentioned above.

5.1 Measures

We measured all variables using ordinal 7-point, multi-item Likert scales, anchored “Totally agree” and “Totally disagree”. The loyalty items were based on Zeithaml et al., (1996). Two loyalty measures tapped into intentions to continue the relationship, while the third measured the respondents’ tendency to recommend the bank to people they knew. The choice of including an item tapping into previous behavior was inspired by the assumption that having recommended something to people the respondent knew acts as a signal of commitment to the service provider (Gundlach et al., 1995). The inclusion was also inspired by the central role that commitment has been given in conceptualizations of loyalty by, for example, Oliver (1999) and Bloemer and Kasper (1995). The credibility measures were adapted from Ganesan (1994). The satisfaction and image measures were all based on Selnes (1993), and the value items were adapted from Hansen et al., (2008). Finally, to capture consumers’ need for cognition, we employed the complete 18-item scale developed and validated by Cacioppo et al., (1984). Consumers, bank executives, and
frontline employees reviewed the scales to enhance face validity. This resulted in minor semantic adjustment in order to make the questions comprehensible for consumers. We still wanted the items to be as close as possible to the original scales, so no changes were made to the substantive meaning of items. Several independent marketing scholars reviewed the revised scales, and compared the original scales to our items. They made no suggestions for further improvements. See the appendix for a complete list of the measures used in the survey.

5.2 Data preparation
Consistent with the psychometric procedures reported by Kohli (1989), and Bhagat and Williams (2008), we tested the hypothesized moderating effects of NFC with a sub-group procedure (Arnold, 1982). First, following Cacioppo et al., (1984), we summarized the 18 items in the NFC scale into a uni-dimensional scale with possible scores ranging from 18 to 126. Based on Haugtvedt et al., (1992), we divided the total sample of respondents into three groups based on the 33.6% and 67.7% cut-off values on the NFC score in the sample. The NFC score ranged from 51 to 83 (mean: 74.20, n=66) in the low group, and from 93 to 120 in the high group (mean: 101.38, n=72). Following Haugtvedt et al., (1992) and Kohli (1989), we excluded the respondents with a medium score, and for further analysis, we kept only the two groups with the highest and lowest summarized NFC score. This was done to increase the contrast between the groups and thus also to increase the power of the tests. The low NFC group had 52% males with a mean age
of 36 years. The high NFC group had 55% males with a mean age of 35 years. In contrast to the Arnold (1982) procedure, we used a more sophisticated analytical tool, Structural Equation Modeling in LISREL, for conducting the two-group analysis of the moderating effect.

We screened the data and conducted a missing value analysis on each group in SPSS. No patterns emerged, although we removed one observation from each group for excessive missing data. This was particularly important because we replaced missing data with the EM algorithm method in Prelis. The low NFC group had n=66 with 0.86% missing data; the high NFC group had n=72 with 0.18% missing data. With such small groups in LISREL, the reliability of the estimates is negatively affected and the power is low for significance tests. The only remedy for low power is to lower the critical cutoff levels for statistical significance. As for reliability, prior to doing the two-group analysis in LISREL, we followed the Arnold (1982) procedure, using the Chow (1960) test for group differences. The results, though not shown, were substantively very similar with respect to the hypothesis tests, suggesting that our results from the LISREL test are robust and reliable.

For descriptive purposes, table I shows the differences in means between the two groups on the independent and dependent variables. ANOVA comparisons indicated no significant differences in means on the independent variables between the two groups. Despite this
equality, low NFCs reported significantly higher loyalty than high NFCs.

Next, as recommended by Jöreskog and Sörbom (1996) when using ordinal data, we estimated a polychoric correlation matrix and an asymptotic covariance matrix, and then used robust maximum likelihood estimation as input to LISREL for each group. Two-group analysis in LISREL tests for equivalence across groups (Jöreskog and

<table>
<thead>
<tr>
<th>TABLE I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Descriptive statistics and between-group differences</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variable</th>
<th>NFC group</th>
<th>Mean (S.d)</th>
<th>F-test, sign. level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction</td>
<td>Low</td>
<td>4.81 (1.24)</td>
<td>F(1,134) = 1.67, n.s.</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>4.52 (1.29)</td>
<td></td>
</tr>
<tr>
<td>Image</td>
<td>Low</td>
<td>4.63 (1.14)</td>
<td>F(1,135) = .54, n.s.</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>4.48 (1.29)</td>
<td></td>
</tr>
<tr>
<td>Value</td>
<td>Low</td>
<td>4.25 (1.25)</td>
<td>F(1,134) = .05, n.s.</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>4.29 (1.24)</td>
<td></td>
</tr>
<tr>
<td>Credibility</td>
<td>Low</td>
<td>5.15 (.91)</td>
<td>F(1,134) = 1.2, n.s.</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>4.96 (1.09)</td>
<td></td>
</tr>
<tr>
<td>Customer Loyalty</td>
<td>Low</td>
<td>4.87 (1.54)</td>
<td>F(1,136) = 4.06, p = .046</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>4.33 (1.60)</td>
<td></td>
</tr>
</tbody>
</table>

Note: Means are on seven-point scales 1–7.
Using chi-square difference tests, we determine whether and where group differences exist. In two-group analysis, we report the Satorra-Bentler Scaled chi-square. In the measurement model, we began by fixing all model parameters to be identical across groups, and then differences were considered in successive models where error terms and factor loadings were estimated independently for each construct in each group. Significantly better fit with different error terms across models indicates different levels of certainty in responses across groups, whereas significantly better fit with differences in factor loadings across models indicates conceptual differences between groups in their understanding of the latent constructs.

In the process of testing for group differences across constructs, we also test construct validity and reliability. Some indicators of the latent constructs had slightly high measurement error, so we removed items 2 and 6 from the value scale, and removed items 4, 5, and 7 from the credibility scale. Both scales had four remaining items each, so multidimensionality was intact. Results are as follows. The chi-square difference tests showed no significant improvement in fit when error terms, loadings, or both were freed across groups. This result provides evidence that there are no differences between groups. Therefore, we interpret the model where groups are assumed and fixed to be identical. Refer to table II for measurement model results. Measurement model fit statistics were chi-square=280.61, df=296, p=0.731, RMSEA=0.000, NFI=0.96, and CFI=1.0, indicating excellent fit, and all factor loadings
were significant, indicating convergent validity (Fornell and Larcker, 1981). We assessed discriminant validity by estimating a confidence interval (± two standard errors) around the standardized correlations between latent constructs (off diagonal of the phi matrix). The interval should not include 1 (Anderson and Gerbing, 1988). All constructs easily passed this test. In addition we considered variance extracted, which should be greater than 0.5, and composite reliability, which should be greater than 0.7 (Fornell and Larker, 1981). Again, all constructs pass these tests. Cronbach’s alpha was calculated for all latent constructs. With a cutoff of 0.7 (Nunnally, 1978), all constructs were highly reliable. Table II presents the details.

5.3 Test of hypotheses
To test hypotheses 1–4, we are interested in examining the factor loadings of the model with all parameters fixed to be identical across groups. The model fit the data well with chi-square=280.61, df=296, p-value=0.731, RMSEA=0.000, NFI=0.96, and CFI=1.0. As can be seen from table III, the effects in the fixed model are mixed in terms of empirical support. There is a positive, significant effect of satisfaction on customer loyalty, supporting hypothesis 1. However, hypotheses 2, 3, and 4 are not supported by the data; thus, image, value, and credibility do not significantly influence customer loyalty when the groups are assumed to be equal.
To test for moderation, the next step was to estimate the structural model, freeing the structural parameters so that the low and high groups were estimated independently, and then to compare the fixed and free models. Fixed model chi-square=280.61, df=296, p-value=0.731, and free model chi-square=276.59, df=292, p-value=0.733. Chi square difference is 280.61–276.59 = 4.02; df is 296–292 = 4. Chi-square at $\alpha=0.05$ with 4df is 9.49. Since 4.02 < 9.49, we can conclude that there is no significant difference between models; thus the low and high groups have identical structural relationships. This is problematic for interpreting the moderating effect of NFC. To have clear statistical support for the moderating effect, the chi-square difference tests should be significant. However, given that the sample size falls well below generally accepted levels for LISREL, the insignificant differences are not surprising. Instead, we must rely on the t-tests of the individual structural parameters to determine the presence of moderation (Table IV).

Table IV reports the results pertaining to the hypothesized moderating effect of NFC. To understand the moderating effect we examine the structural factor loadings of the free model where loadings are estimated independently for each group. The analysis shows support for hypothesis 5; while both effects of satisfaction are significant, the effect in the high group is far stronger. Hypothesis 6 is partially supported, because the effect of image is not significant in either the low or the high NFC group. This result means that the effect in the low group is
<table>
<thead>
<tr>
<th>Item</th>
<th>Factor loading (t-value)</th>
<th>Phi (std. error)</th>
<th>Variance extracted</th>
<th>Composite reliability</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction 1</td>
<td>0.91 (fixed)</td>
<td>0.82 (0.04)</td>
<td>0.77</td>
<td>0.93</td>
<td>0.915</td>
</tr>
<tr>
<td>Satisfaction 2</td>
<td>0.84 (25.94)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction 3</td>
<td>0.86 (27.30)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction 4</td>
<td>0.90 (33.09)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Image 1</td>
<td>0.87 (fixed)</td>
<td>0.76 (0.07)</td>
<td>0.75</td>
<td>0.90</td>
<td>0.877</td>
</tr>
<tr>
<td>Image 2</td>
<td>0.85 (15.14)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Image 3</td>
<td>0.88 (13.13)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value 1</td>
<td>0.74 (fixed)</td>
<td>0.55 (0.10)</td>
<td>0.72</td>
<td>0.91</td>
<td>0.895</td>
</tr>
<tr>
<td>Value 2</td>
<td>0.89 (10.29)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value 3</td>
<td>0.93 (10.84)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value 4</td>
<td>0.82 (9.78)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credibility 1</td>
<td>0.72 (fixed)</td>
<td>0.51 (0.10)</td>
<td>0.58</td>
<td>0.84</td>
<td>0.818</td>
</tr>
<tr>
<td>Credibility 2</td>
<td>0.85 (9.02)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credibility 3</td>
<td>0.77 (8.31)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credibility 6</td>
<td>0.69 (7.17)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loyalty 1</td>
<td>0.85 (fixed)</td>
<td>0.72 (0.07)</td>
<td>0.68</td>
<td>0.86</td>
<td>0.838</td>
</tr>
<tr>
<td>Loyalty 2</td>
<td>0.72 (10.80)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loyalty 3</td>
<td>0.90 (23.74)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

chi-square=280.61, df=296, p=0.731, RMSEA=0.000, NFI=0.96, and CFI=1.0
### TABLE III
Structural model fixed to identical groups

<table>
<thead>
<tr>
<th>Path</th>
<th>Std. Loading (t-value)</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 Satisfaction → Loyalty</td>
<td>0.81 (3.56)</td>
<td>Supported</td>
</tr>
<tr>
<td>H2 Image → Loyalty</td>
<td>0.07 (0.71)</td>
<td>NS</td>
</tr>
<tr>
<td>H3 Value → Loyalty</td>
<td>0.06 (0.45)</td>
<td>NS</td>
</tr>
<tr>
<td>H4 Credibility → Loyalty</td>
<td>0.06 (0.52)</td>
<td>NS</td>
</tr>
</tbody>
</table>

NS: Not significant

### TABLE IV
Structural model groups estimated separately

<table>
<thead>
<tr>
<th>Path</th>
<th>Low NFC Std. Loading (t-value)</th>
<th>High NFC Std. Loading (t-value)</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>H5 Satisfaction → Loyalty</td>
<td>0.52 (1.70*)</td>
<td>1.07** (3.74)</td>
<td>supported</td>
</tr>
<tr>
<td>H6 Image → Loyalty</td>
<td>-0.08 (-0.70)</td>
<td>0.12 (0.82)</td>
<td>partial support</td>
</tr>
<tr>
<td>H7 Value → Loyalty</td>
<td>0.35 (1.78)</td>
<td>-0.14 (-0.74)</td>
<td>supported</td>
</tr>
<tr>
<td>H8 Credibility → Loyalty</td>
<td>0.25 (1.93)</td>
<td>-0.11 (-0.72)</td>
<td>supported</td>
</tr>
</tbody>
</table>

*α=0.10 for two-sided critical t-value of 1.671 at df=60

**Note that it is possible for standardized loadings to be greater than 1 in LISREL (Jöreskog and Sörbom, 1989).
weak – as we expected – but is not strong in the high NFC group. Hypothesis 7 obtains support because value has a positive significant effect for low NFC consumers, but has no significant effect for the high NFC group. This variable was insignificant in the fixed model, but evidently, it is a significant driver of loyalty in one segment. Finally, hypothesis 8 obtains support because credibility has a positive significant effect for low NFC consumers, but has no significant effect for the high NFC group. As with value, this variable was insignificant in the fixed model, but is actually a significant driver of loyalty in one segment.

6.0 DISCUSSION AND IMPLICATIONS
This research tested the proposition that consumers’ level of NFC would moderate the effect of loyalty drivers. In general, our results yield support for this proposition: even though high and low NFCs evaluate different loyalty drivers to be equally good, there are systematic differences as to how some of these drivers affect customer loyalty.

The findings hold some important implications for theory and practice. First, the model in the total sample proved satisfaction to be the only significant driver of loyalty, but this impression changed substantially when considering the moderating role of NFC. Even though the measurement model works well in both NFC groups, we found more
significant effects of loyalty drivers for the low NFCs. Because satisfaction was the only significant loyalty driver for the high NFCs, our results show that there are important differences in how customers utilize memory-based information to shape their loyalty. The strong effect of satisfaction for the high NFCs could indicate that high NFCs find their satisfaction judgment to be more diagnostic than do low NFCs, meaning that satisfaction might subsume more meaning for customers who are more prone to elaborate. Future research might address the diagnosticity of satisfaction judgments in more detail.

Second, the current study is the first to investigate how NFC moderates effects of memory-based information on customer loyalty, in contrast to the previous studies of moderators of the satisfaction-loyalty link, and in contrast to traditional applications of NFC in the persuasion literature. Since many consumer choice situations are memory-based, both marketing theory and practice might benefit from a more nuanced understanding of how and when consumers use different types of information gained from experience differently depending on dispositional individual differences. This would also imply that further research should consider other loyalty drivers than satisfaction when investigating moderation by individual differences.

In terms of segmentation, NFC can serve as a criterion to identify segments with different (heterogeneous) response functions. One challenge with using individual differences like NFC as a segmentation
criterion is that a manager cannot easily tell who is high vs. low in NFC. In ongoing service relationships one might invite customers to complete screening questions like the NFC scale. Although NFC could be a sensitive issue, customers might be more inclined to provide information if they are explicitly told that the service provider would be in a better position to adapt message content and service-concepts to fit the customer if consumers provide this information. If the service provider gains knowledge about the customers’ NFC through screening, they can personalize the level of cognitive challenge in message content. Stated differently, some groups are more inclined to process external information on facets such as image, while others are more motivated to employ less cognitively challenging information like memory-based perceptions of value. So, even though one might be providing similar core service offerings, knowing how to frame them, and knowing the amount and type of information to provide are essential to avoid missing the target. Because high NFCs enjoy thinking, they may take offence at being talked to and treated simplistically, whereas low NFCs may not.

Loyalty programs with web-based self-service options could vary according to the different consumers NFC. Just as the Internet bookstore Amazon.com personalizes the welcome page of their web-shop to the profile of each customer, any web-based communication channel could be designed similarly. For example, because logging in to a retail bank’s Internet service implies that the consumer identifies
himself, a retail bank can easily personalize the web-site content according to the personality characteristics of the customer. If knowledge of the customer’s NFC is unknown, one could analyze the customer’s use of information on the site. Extensive usage, request of detailed information etc, could indicate a customer with higher NFC. Another option to detect NFC could be self-selection. One could offer two web-formats, one with lots of information and details, one with less, and let the customer choose. Subsequent to this choice, the customer could be automatically surveyed after a given number of transactions, and asked about satisfaction with information richness, felt lack of information, the web-site’s ease of use and usefulness etc. A final option inspired by knowledge about NFC, could be to allow customers to add or remove content, i.e., personalize their web-interface to fit their own preferences. With its simplicity, Google has shown that a basic version can apply to anyone, but that pending on user preferences, lots of gadgets are available to whoever is interested. The point is that the result is customer-driven, fitted to the customer’s preferences. Too many companies start the other way around, with too much standard information, making navigation a challenge for many customers.

Many companies conduct customer satisfaction surveys at least annually. Most often, responses to such surveys require consumers to access their memory to answer. The fact that NFC systematically affects memory utilization indicates that managers should show caution
when interpreting results from such surveys. When making choices about future customer strategies, it could be in managers’ interest to know how answers and effects vary across customers with different propensities to elaborate.

Finally, our results imply that satisfaction is the major driver of customer loyalty, regardless of NFC level. Hence, the firm trying to increase the loyalty levels of their customers should keep satisfaction as the top priority when interacting and making transactions with customers. Thus, managers need to carefully plan any reinforcement schedules aimed at increasing satisfaction and loyalty, and to tailor such activities according to the target group they have in mind. The current and previous research demonstrates that one size does not necessarily fit all.

In this study, we reported on a selected few among a large number of customer loyalty drivers. The literature both on customer loyalty drivers and on individual differences is extensive, and future research would benefit from initiatives aimed at advancing current knowledge on how general cause-and-effect relationships depend on intrinsic differences among those under study, namely the consumers.

We believe such an endeavor will increase our knowledge of what truly makes different customers loyal, thereby offering managers a more detailed marketing toolbox.
APPENDIX

List of measures

Need for cognition

1) I prefer complex to simple problems.
2) I like to have the responsibility of handling a situation that requires a lot of thinking.
3) Thinking is not my idea of fun (r).
4) I would rather do something that requires little thought than something that is sure to challenge my thinking abilities (r).
5) I try to anticipate and avoid situations where there is a likely chance I will have to think in depth about something (r).
6) I find satisfaction in deliberating hard for long hours.
7) I only think as hard as I have to (r).
8) I prefer to think about small daily projects rather than about long-term ones (r).
9) I like tasks that require little thought once I have learned them (r).
10) The idea of relying on thought to make my way to the top appeals to me.
11) I really enjoy a task that involves coming up with new solutions to problems.
12) Learning new ways to think doesn't excite me very much (r).
13) I prefer my life to be filled with puzzles that I must solve.
14) The notion of thinking abstractly is appealing to me.
15) I would prefer a task that is intellectual, difficult, and more important to one that is somewhat important but does not require much thought.
16) I feel relief rather than satisfaction after completing a task that required a lot of mental effort (r).
17) It's enough for me that something gets the job done. I don't do not care how it works (r).
18) I usually end up deliberating about issues even when they do not affect me personally.

Customer loyalty
1) I often recommend my bank to people I know.
2) I honestly wish to be loyal to my bank.
3) I want to continue to be a customer of this bank.

Satisfaction
1) Overall, I am very satisfied with my bank.
2) My bank is very close to being what I would call the ideal bank.
3) My bank always meets my expectations.
4) Based on my experience with this bank, I find it very attractive compared to other banks.

Image
1) My bank has a very positive image compared to that of other banks.
2) My friends find my bank to have a positive image.
3) My bank has a good image among the other customers of the bank.

**Value**

1) My relationship to this bank is very beneficial to me.
2) My banking costs have decreased more than I expected when my relationship to this bank was established.*
3) It is more valuable to me to do business with this bank than with other banks.
4) I consider it very advantageous to be a customer of my bank.
5) As a customer of my bank, I get more value for money.
6) After my relationship with this bank was established, I spend less resources on banking services.*

**Credibility**

1) If unexpected problems arise, my bank is always capable of solving them.
2) My bank has been frank in dealing with me.
3) What my bank tells me is always reliable.
4) My bank always delivers their services properly.*
5) My bank is always good at updating me on changes that are of relevance to me.*
6) If problems arise, my bank is honest about the problems.
7) My bank has problems answering my questions (r).*

*: Item dropped from final scale, (r): Denotes reversed items.
REFERENCES


