



The role of satisfaction, norms and conflict in families' eating behaviour

Families' eating
behaviour

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Received January 2008

Revised October 2008

January 2009

Accepted January 2009

Abstract

Purpose – The purpose of this study is to analyse the relationship between satisfaction and consumer behaviour by proposing and testing a model of how moral and social influences interact with individual satisfaction and conflict to explain and understand consumer behaviour in a family context, using consumption of fish for the family as an example.

Design/methodology/approach – Survey data from a sample of 452 Norwegian respondents are used. The target behaviour was eating fish as a family meal. The constructs of behaviour, satisfaction, social norm, preference conflict and personal norm were measured by multiple-item measures. After checking for reliability and validity of the data by confirmatory factor analysis, structural equation modelling in Lisrel was used to estimate relationships between the constructs and their measures.

Findings – While satisfaction, social norm and preference conflict had an influence on behaviour, the impact of satisfaction was least among the three constructs. In turn, these three constructs were influenced by personal norm. Also, social norm and preference conflict were mutually related.

Research limitations/implications – The study is based on self-reported data and does not include observational data. It is also based on cross-sectional data. The results underline the importance of social factors when dealing with the relationship between satisfaction and behaviour in a family context.

Practical implications – The role of satisfaction as a strategic variable in establishing customer loyalty should be put in context whenever consumption decisions are made in a social situation, since social variables may be more important for establishing loyalty than individual satisfaction of one person whenever decisions are made jointly in a family household.

Originality/value – The results highlighted here have important managerial implications for the use of satisfaction data in marketing and will be of use to those working in that field.

Keywords Culture (sociology), Conflict, Family, Decision making, Food products, Norway

Paper type Research paper

Introduction

For many years, consumer behaviour research has been overwhelmingly concerned with cognitive processes and individual or independent behaviour (Bagozzi, 2000). However, consumption is not always an individual phenomenon, but includes social



This work was made possible by grants from the Research Council of Norway Grant NFR-133518/110.

aspects such as shopping for the family, love and sacrifice, shared social cognition and feelings, influences from social norms, social identity, social situations or group influences (e.g. Miller, 1998; Ryan, 1982). Theories about shared social will and social action should, for these reasons, influence how we study consumer satisfaction and intended or actual behaviour within a social context.

Social aspects of consumption may also be one of the reasons for the sometimes-limited relationship between satisfaction and behavioural indicators, such as buying retention, consumption or loyalty. Theoretically, this relationship should be strong (Oliver, 1997). In reality, the few studies on this phenomenon suggest that this relationship is very low, and in the most extreme cases, there is a non-relationship (Mittal and Kamakura, 2001; Seiders *et al.*, 2005). In a phenomenological and longitudinal investigation of consumer satisfaction, Fournier and Mick (1999) have suggested a more holistic, context-dependent and dynamic approach to the understanding of satisfaction and consumer behaviour. Among their many suggestions for future improvements is a deeper understanding of the social dimensions influencing satisfaction and its link to behaviour.

The most common way of incorporating social aspects into the explanation of behavioural intentions and behaviour has been by invoking the construct of social norm within the framework of the theory of reasoned action (TRA) or the theory of planned behaviour (TPB) (Ajzen, 1991; Armitage and Conner, 2001). However, the social norm construct is an individual construct referring to the perception of the expectations of relevant others, and the motivation to comply with these. It does not capture the social interaction that may occur in joint decision-making, or in individual decision-making that will affect others.

Research on family decision making has focused attention on influence processes and joint decision-making in a family context (John, 1999). Family members do not have identical needs and wants. Thus, a family decision-making process and its outcome are different from and more complicated than an individual decision-making process, and is likely to encompass interactions and conflict between family members (Hall, 1987; Qualls and Jaffe, 1992).

Understanding the role of family interaction and, in particular, conflict in the shaping of future behaviour and the limitations it sets for how future behaviour will reflect earlier satisfaction, is an issue of considerable practical interest. From a managerial perspective, satisfying individual family members is different from satisfying families' jointly formed preferences. Positioning a product against a single person may require different attributes than doing it against a family. Also, a better understanding of how family interactions and conflict may limit the effect of satisfaction on future behaviour can be important for the successful use of customer satisfaction measures for the monitoring of business performance. Finally, attempts to influence consumption patterns in societal desirable directions – for example, attempts to induce healthier eating – will benefit from a better understanding of family interaction and conflict.

This study attempts to provide a more holistic view of the relationship between satisfaction and consumer behaviour by proposing and testing a model of how moral and social influences interact with individual satisfaction and conflict to explain and understand consumer behaviour in a family context. Whereas previous research has studied some of the relationships in our model separately, our study goes beyond this

by simultaneously addressing the relative importance of satisfaction, social norms and conflicting preferences in explaining consumer consumption behaviour and loyalty. By doing this, we hope to advance the integration of the psychology-oriented approach to customer satisfaction with recent social-oriented approaches in social psychology – in particular in the area of attitudes and behaviour in a social context (e.g. Manstead, 2000). On the basis of our contribution, we argue that managers should no longer view the satisfaction-consumption/loyalty relationship as a solely individual phenomenon. The target behaviour studied is the consumption of food (fish as a family meal), and is based on a sample of about 450 Norwegian respondents living with their families. Fish is a mainstay of Norwegian diets, ensuring a high incidence rate of familiarity with the product.

Conceptual framework and hypotheses

In developing the conceptual framework, we review the literature on satisfaction-retention relationship, research on attitude-behaviour relationship in a social context and studies on family decision-making. Since the dependent variable and empirical setting are limited to eating behaviour, this review also includes relevant studies in this area. Our conceptual model with hypotheses is depicted in Figure 1. We propose three direct predictors of the target behaviour:

- (1) *satisfaction*, with the outcomes of previous behaviour;
- (2) *social norm*, i.e. expectations about reactions of other family members to the behaviour; and
- (3) *preference conflict*, i.e. expectations about to what extent the behaviour will be controversial in the family.

Personal norm acts as a value and second-order predictor of behaviour (Homer and Kahle, 1988), meaning that personal norms in engaging in the target behaviour will activate satisfaction, social norm and expected conflict. Our approach can be viewed as a response to Manstead's (2000) call for empirical evidence on conflicts between moral norms, social norms and individual attitudes. Preference conflict is added as a separate construct also because research on household or family conflict in marketing is relatively sparse (Qualls, 1988), even though conflict is quite common in family food preferences and choice (e.g. Bove *et al.*, 2003).

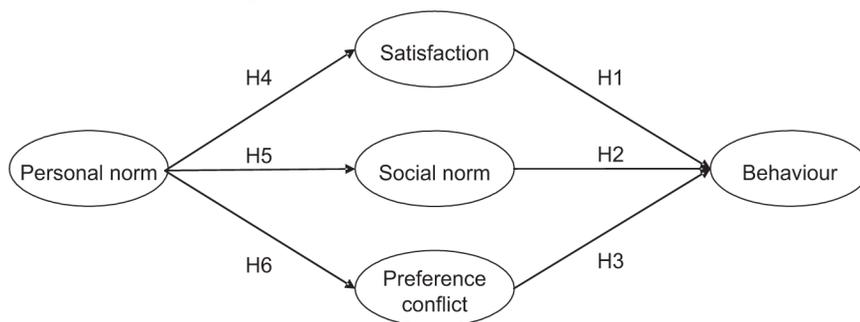


Figure 1.
Conceptual model

Satisfaction and behavioural indicators

Satisfaction has been defined and measured in different ways over the years (Oliver, 1997). One of the latest formal definitions of satisfaction as a composite construct has been developed by Oliver (1997, p. 28), who proposed it to be “the consumer’s fulfilment response, the degree to which the level of fulfilment is pleasant or unpleasant”. An important advantage of the cumulative satisfaction construct over a more transaction-specific view is that it is better able to predict subsequent behaviours and economic performance (Oliver, 1997). In this study the aim is to define individual satisfaction as a consumer’s personal overall evaluation of satisfaction and pleasure with a given product – as cumulative rather than a transaction-specific construct.

Most empirical studies measuring direct and moderated satisfaction-behavioural/retention relationship measure behavioural intention (e.g. repurchase intention), attitudinal loyalty (e.g. recommendation or commitment) or similar behavioural indicators rather than overt action (Seiders *et al.*, 2005). Recent studies have questioned this issue because intentional and attitudinal loyalty measures are different from subsequent behaviour (Mittal and Kamakura, 2001). Thus, we therefore define our behavioural measure as the frequency of consumption over time. This behavioural indicator has also been defined as action loyalty or behavioural loyalty (Olsen, 2002).

The high interest in the satisfaction construct is linked to an implicit assumption that there is a strong positive relationship between customer satisfaction and behavioural indicators such as intention, retention, buying, repurchasing, paying more or buying more of a product or services (Seiders *et al.*, 2005; Szymanski and Henard, 2001). This includes findings in the area of eating behaviour (e.g. Olsen, 2002). However, empirical studies that have tested the relationship between satisfaction and perceived or actual behaviour/loyalty have found a moderate to low relationship (Bloemer and de Ruyter, 1998; Mittal and Kamakura, 2001; Seiders *et al.*, 2005). Therefore, we offer the hypothesis that:

H1. Satisfaction is positively related to eating behaviour.

The relationship between satisfaction and intended or actual loyalty proves to be complicated, involving different functional forms, different moderator variables and the fact that other factors may outperform satisfaction as the key predictor of loyalty (Homburg and Giering, 2001; Szymanski and Henard, 2001). On the basis of such findings, several researchers have challenged the view that there is a simple satisfaction-behaviour/loyalty relationship, arguing instead that more complex models need to be employed in studying the antecedents of people’s loyalty toward brands, products, services or other objects (e.g. Oliver, 1999; Seiders *et al.*, 2005). Fournier and Mick’s (1999) qualitative findings suggest that satisfaction of other relevant household members and other social effects and negotiations may be important aspects of the satisfaction-behaviour processes.

Social norm

Daniel Miller’s (1998) research on his theory of shopping shows how British housewives sacrifice their own desires in order to satisfy those of their husband and children. Understanding of the various ways that people as consumers influence each other, and the role of cognitive, motivational and behavioural mechanisms in these processes has probably never been of greater importance than today.

As previously noted, most research on the role of social norms in attitude-behaviour relations has been conducted from the perspective of the theories of reasoned action (Fishbein and Ajzen, 1975) or planned behaviour (Ajzen, 1991). Social norms are in these studies intended to measure the influence of the social environment, and operationalized as perceived social pressure or as expectations from relevant people in general (subjective norms) or from specific groups or individuals (normative beliefs). We retain "social norm" in our conceptual framework as an integrated term. This term covers most formal definitions of social norm, subjective norm or injunctive norm, and can be framed to cover a particular social object or group of objects (such as family, friends or other reference groups). However, our definition of social norm does not include descriptive norms (also discussed as group norms and behavioral norms), which refers to the perceptions of significant others' own attitude and behavior in the domain (Rivis and Sheeran, 2003).

Research has found only weak support for the proposed role of subjective norms under the conditions specified by these theories (Ajzen, 1991; Armitage and Conner, 2001). Several explanations for the weak support for the norm-intention/behaviour relationship have been put forward such as measurement issues (Armitage and Conner, 2001), individual and situational differences (see Trafimow, 2000 for a review). For example, Povey *et al.* (2001) found that social (subjective) norm had a significant positive impact on intention to eat meat and vegan, but not vegetarian food in a study in the UK. Dealing with the substantive domain of the present study, Bredahl and Grunert (1997) found that family expectations (positively) explained as much of the variance in both fresh and frozen seafood consumption as the attitude factor (taste and/or preferences) in Danish households. These results are similar to those found in representative samples in Norway (Olsen, 2002) and in Belgium by Verbeke and Vackier (2005). Thus, we suggest that:

H2. Eating behaviour will be positively influenced by social norms.

Conflict in family preferences

The social norm construct covers only the influence that expectations of other family members may have on own behaviour. It does not cover the conflict that may result from diverging expectations. While past research on conflict is voluminous, a clear, generally accepted definition of conflict is still lacking, but there are some domain-specific definitions in the literature (Hartwick and Barki, 2002). For example, Hall (1987, p. 768) defines conflict in the family context as "disagreement between two or more persons". Disagreement or differences in goals, decisions, preferences, opinions, cognitions or emotions are commonly the focus in research on interpersonal conflict (Qualls, 1988). This study follows this tradition and defines conflict as "disagreement in preferences between family members".

Research on household or family conflict is relatively sparse in the consumer behaviour literature (e.g. White and Johnsen, 2001). The degree of conflict differs between different kinds of products (Belch *et al.*, 1980). Related to our domain of food behaviour within a family, a meta-analysis by Borah-Giddens and Falciglia (1993) shows a significant but small correlation between parents' and their children's food preferences. Therefore, disagreement and conflict are common in family food preferences and choice (e.g. Bove *et al.*, 2003). It is reasonable to suggest that preference conflicts related to family meals may have a direct and negative impact on

families' consumption behaviour for a given product (Bove *et al.*, 2003). Therefore, we offer that:

- H3. Preference conflict is negatively related to eating behaviour of a given product.

Values and personal norms

Social processes in family preference formation and decision-making, including conflict, may play a larger role the more the family members feel that the target behaviour in question is personally relevant (Qualls and Jaffe, 1992). One prominent way of analysing personal relevance in a consumer behaviour context has been to analyse the extent to which the target behaviour is perceived to be linked to the achievement of personal life values. Life values have been defined as concepts or beliefs about desirable end states or behaviour that transcend specific situations, guide the selection of evaluation of behaviour and events and are ordered by relative importance (Schwartz and Bilsky, 1987). Since they are cognitions of a very high level of abstraction and direct behaviour across a wide range of behaviours and events, they are unlikely to account for much of the variability in specific attitudes and behaviours (Rokeach, 1973). Rather, the influence of values on attitudes and behaviour occurs indirectly via other cognitive components in the hierarchy. This is the basis for the value-attitude-hierarchy model (e.g. Homer and Kahle, 1988), suggesting that the influence should flow from abstract values to mid-range cognitions to specific behaviours.

These mid-range cognitions are more numerous than personal values, being more specific than personal values, but more abstract than attitudes. In research carried out in the context of the theories of reasoned action or planned behaviour, such mid-range cognitions have been addressed by the construct of personal or moral norms (e.g. Kaiser, 2006). Personal norms are in these studies defined as self-expectations that are based on internalized values and feelings of personal obligations to engage in certain behaviours. The conviction that some forms of behaviour are inherently right or wrong, regardless of their personal or social consequences, is what we define as personal norm (Manstead, 2000).

A number of studies have suggested that an inclusion of personal or moral norms improves the predictive power of the theory of reasoned action in a wide range of behavioural domains such as blood donation, dishonest action, employee behaviour, business ethics, sexual behaviour and smoking behaviour (Manstead, 2000). In the 11 studies reviewed by Conner and Armitage (1998), moral norm was a significant predictor of intentions in nine cases. For example, Shepherd and Raats (1996) proposed that the inclusion of moral norm increases the predictive power of the theory of planned behaviour when a person is involved in buying and preparing foods for other people and, perhaps, particularly for children. Their propositions are based on studies testing people's attitudes towards food with artificial sweeteners and synthetic colourings, high-fat food and high-sugar food.

In research in the tradition of the theories of reasoned action and planned behaviour, it has been common to add personal or moral norms as an additional predictor along with attitude, social norm and perceived control. However, in the light of a proposed value-attitudes-behaviour hierarchy, one may ask whether some of the effect of personal or moral norms is mediated by the other constructs. Sparks *et al.* (1995), in a

study on predicting expectations about eating food produced by gene technology in the future, found that measures of perceived ethical obligations produced only a marginally significant independent contribution to the prediction of expectations; however, they did provide a significant contribution to the prediction of attitudes. This is also confirmed in a recent study about intention to purchase organic food (Arvola *et al.*, 2008).

Kaiser and Scheuthle (2003) followed Sparks *et al.* (1995) suggestions and found that moral norms had no independent and direct effect on intention to behave ecologically, but had an indirect positive effect through attitude. In a recent study, Kaiser (2006) tested a structural model where attitude is a fully mediator between moral norm and behavioural intention to act conservationally. Therefore, we propose that:

H4. There is a positive relationship between personal norm and satisfaction.

As previously discussed, most studies have modelled personal norms as an independent variable with a direct effect on intention or behaviour (Conner and Armitage, 1998). Thus, only one recent study that we are aware of has modelled the relationship between social norm and personal norm. In this study (Arvola *et al.*, 2008) the authors found a high and positive relationship between moral norms and social norms in the context of buying organic food. By inspecting the correlation matrices in some other studies (e.g. Kaiser, 2006), we find a highly positive correlation between moral personal norm and social norm. Thus, we propose that:

H5. Personal norm is positively related to social norm.

No study that we are aware of has tested the role of preference conflict within our conceptual framework. We suggest that preference conflict is a facet of perceived behavioural control and decreases a person's ability to perceive control over his/her behaviour, which allows us to draw on results from studies including personal norms within the theory of planned behaviour. These studies often report positive correlations between personal norms and perceived behavioural control (e.g. Arvola *et al.*, 2008; Kaiser, 2006). In our context, this means that the moral obligation to serve the family healthy food (like fish) for dinner is positively related to the perception of conflict in the family preferences for this kind of food. Therefore, we propose that:

H6. Personal norm is positively related to preference conflict.

Method

Design and empirical context

The sample was recruited via a representative national survey of Norwegian school pupils in middle and high school as part of a larger research project. A national list of all schools was stratified by location, size and type of school. A sample of schools and classes was randomly chosen. As part of this study, a questionnaire was distributed to their parent most responsible for buying and preparing home meals. A return envelope was enclosed. The results are based on an effective sample size of 452 respondents, which is about 45% of the distributed questionnaires. The typical respondent was female (80%), married (92%) and was 44 years of age (range 30 to 58 years). The average size of the household was 4.2 persons.

Measurement of the constructs

As well as assessing the constructs in our conceptual model (Figure 1), the questionnaire included additional measures of attitudes and interests, together with some demographic information at the very end of the questionnaire. The first part of the questionnaire addressed eating behaviour. The other constructs used in the study were placed in the following order: satisfaction, social norm, personal norm and preference conflicts. Other attitude constructs not used in this study were assessed in between these four constructs.

Satisfaction is defined as a global evaluation or feeling state, and Oliver's (1997) recent definition of satisfaction was used to form two of our satisfaction measures. The respondents were asked to express their agreement or disagreement with two statements of general evaluation: "I feel very satisfied when I have fish for dinner", and "Fish for dinner gives me a pleasant feeling". In addition, we also adapted and included a third item used in some multi-item measures of satisfaction (e.g. Seiders *et al.*, 2005). This third item was: "Fish is delightful for dinner". All these items were measured on a seven-point Likert scale anchored by disagree strongly (-3), neither disagree nor agree (0) and agree strongly (+3).

Social norm. When studying social influence, it is important to pay careful attention to the specific personal relationship or reference groups that are salient or important in the behavioural context (Kallgren *et al.*, 2000). Therefore, we related the social norm construct to the family group and measured it by three items: "My family expects me to have fish regularly for dinner", "My children expect me to have fish regularly for dinner" and "My spouse/partner expects me to have fish regularly for dinner". All these items were measured on a seven-point Likert scale anchored by disagree strongly (-3), neither disagree nor agree (0) and agree strongly (+3). "Expectations" is widely used to address social norms (e.g. Ryan, 1982).

Personal norm was measured by five items on a seven-point Likert scale anchored by disagree strongly (-3), neither disagree nor agree (0) and agree strongly (+3): "I would feel guilty about not eating fish regularly for dinner", "I feel obliged to eat fish regularly for dinner", "I feel I have a moral obligation to serve my family fish for dinner", "I get a bad conscience the weeks we don't have fish for dinner" and "It would be against my principles not serving my family fish for dinner". These items are a combination of items previously used (Kaiser and Scheuthle, 2003; Sparks *et al.*, 1995) to assess moral or personal norms and have been adapted to our empirical setting.

Preference conflict was assessed by three items on a seven-point Likert scale: "I often feel conflict between my family's preferences and my own preferences when having fish for dinner", "I often feel that my family and I disagree when having fish for dinner" and "Having fish for dinner, I feel we often disagree about how satisfied we are with the meal". In addition, we measured preference conflict by asking respondents to evaluate the discrepancy in family preferences in decisions about fish as a home dinner along a five-point semantic differential scale anchored "Exactly equal preferences" (1) to "Very different preferences" (5). These measures are also in accordance with the formal definition of parent-adolescent conflict by Hall (1987).

Eating behaviour is measured by two items. The first item measures repeat consumption of seafood over a one-year time frame (general frequency) by asking the respondents: "How many times - on average - during the last year have you eaten fish for dinner in your home?" 1 = never, 2 = seldom, 3 = once a month, 4 = once

every two weeks, 5 = once a week, 6 = twice a week and 7 = 3 times a week or more. The second item assessed recent frequency (Bagozzi and Kimmel, 1995) by a 15-point scale of the form, "Can you estimate how many times during the last 14 days you have eaten fish for dinner in your home". The respondents were given the opportunity to mark their responses on a scale from 0 to 14 times.

The authors are aware that the correctness of the individual self-reported behavioural frequency compared with actual behaviour may be problematic (Tourangeau *et al.*, 2000). This study is based on self-reported behaviour of fish consumption, and may differ somewhat from families' actual consumption. However, most methods of dietary assessment show errors and self-reports in cross-sectional surveys may serve as a good proxy for actual consumption of several kinds of salient food intakes (Tefft and Boniface, 2000). Among our sample the average consumption of fish was somewhat less than once a week for whole fish and fish fillets, and a little more than once a week for processed fish products. This corresponds to representative studies of seafood consumption in Norwegian family households (Olsen and Kristoffersen, 1999).

Analytical procedures

There are two steps in the analytical procedure. First, we try to confirm that each measure taps facets of the intended construct (convergent validity) and that the constructs are distinct from each other (discriminant validity). To do so, a confirmatory factor analysis was conducted using LISREL 8.50 (Jöreskog and Sörbom, 1993). PRELIS 12.2 with list-wise deletion was used to analyse the raw data and create the covariance matrix used as input to LISREL. The measurement model estimated proposed that each measure reflects the appropriate constructs in our conceptual model. The second stage of the analysis used structural equation modelling to test the proposed relationships between the constructs by maximum likelihood estimation in LISREL 8.50.

The traditional χ^2 (chi-square) fit test is reported; however, because it has been recognized as an inappropriate test for a large sample size (Browne and Cudeck, 1992), three other indices are also included:

- (1) Root Mean Square Error of Approximation (RMSEA).
- (2) Non-Normed Fit Index (NNFI).
- (3) Comparative Fit Index (CFI).

Acceptable model fits are indicated by NNFI and CFI values exceeding 0.90, and RMSEA values below 0.08 represent a moderate fit, while values less than 0.05 are considered good (Browne and Cudeck, 1992).

Results

Reliability and validity of the measures

The first goal was to confirm that each measure taps facets of the five latent constructs (convergent validity) and that the constructs are distinct from each other (discriminant validity). An analysis of the a priori measurement model with 17 variables resulted in a reasonably good fit with a χ^2 -value of 282.01 ($df = 109, p < 0.001$); RMSEA = 0.059; NNFI = 0.93; and CFI = 0.94. Convergent validity was examined by looking at the individual item loadings on the constructs and the average measure of variance shared

between the items and the construct (Jöreskog and Sörbom, 1993). Reliability of the multi-item scales was assessed by computing Jöreskog's composite reliability coefficient for each construct (Anderson and Gerbing, 1988).

The standardized factor loadings and construct reliabilities for the measurement model are presented in Table I. The individual item loadings (lambdas) on the constructs were all highly significant ($p < 0.001$: t -value > 11) with values ranging from 0.54 to 0.90. With the exception of two measures, which provide a factor loading of 0.54 and 0.55, the individual indicators were above 0.65 and have substantial variance attributed to the underlying latent construct (convergent validity). All the

Constructs and indicators	Standardized factor loadings	t -value	Composite reliability	Variance extracted
<i>Satisfaction</i>				
I feel very satisfied when I have fish for dinner	0.88	20.99	0.83	0.62
Fish for dinner gives me a pleasant feeling	0.90	21.56		
Fish is delightful for dinner	0.54	11.83		
<i>Social norm</i>				
My family expects me to have fish regularly for dinner	0.80	17.69	0.77	0.53
My children expect me to have fish regularly for dinner	0.68	14.60		
My spouse/partner expects me to have fish regularly for dinner	0.69	14.81		
<i>Personal norm</i>				
I would feel guilty about not eating fish regularly for dinner	0.77	18.17	0.84	0.52
I feel obliged to eat fish regularly for dinner	0.75	17.49		
I feel I have a moral obligation to serve my family fish for dinner	0.66	14.91		
I get a bad conscience the weeks we don't have fish for dinner	0.76	17.88		
It would be against my principles not serving my family fish for dinner	0.65	14.61		
<i>Preference conflict</i>				
I often feel conflict between my family's preferences and my own preferences when having fish for dinner	0.90	22.58	0.83	0.66
I often feel that my family and I disagree when having fish for dinner	0.76	17.84		
Having fish for dinner, I feel we often disagree about how satisfied we are with the meal	0.76	18.06		
Conflicting preferences in semantic form	0.55	11.96		
<i>Eating behaviour</i>				
Self-reported general frequency	0.83	15.03	0.75	0.60
Self-reported recent frequency	0.72	13.49		

Table I.
Standardized confirmatory factor analysis coefficients and construct reliability

individual scales exceeded the recommended minimum standards proposed by Bagozzi and Yi (1988) in terms of construct reliability and variance extracted (composite reliability greater than 0.70 and variance extracted above 0.50).

The intercorrelations between the factors proposed in the model are displayed in Table II. All the correlations, except for that between family conflict and satisfaction, are significant ($p < 0.05$) and below 0.49. This also implies that each correlation is less than 1.00 by an amount exceeding twice its respective standard error (Anderson and Gerbing, 1988). To further assess the discriminant validity of the measures, we adopted a procedure recommended by Bagozzi *et al.* (1991). Within each subset of measures, pairs of constructs were measured in a series of two-factor confirmatory factor models, using LISREL 8.50. A chi-square difference test was conducted. The results suggest that for all pairs of constructs, the two-factor solution was better ($p < 0.01$) than the single-factor solution. For example, combining satisfaction and moral norm into a single factor produced a significantly worse fit ($\chi^2 = 499.72$, $df = 20$, $p < 0.001$, RMSEA = 0.23) than did a model treating these as two separate factors ($\chi^2 = 57.74$, $df = 19$, $p = 0.000$, RMSEA = 0.0067). In sum, the measures of the proposed constructs achieve high reliability and convergent and discriminant validity.

Structural analysis and model testing

The main effects of the proposed model presented in Figure 1 were tested using LISREL 8.50 (Jöreskog and Sörbom, 1993) on the item variance-covariance matrix. Apart from the χ^2 statistics (331.06; $df = 113$, $p = 0.00$), our structural model suggested a good fit (RMSEA = 0.066; NNFI = 0.95 and CFI = 0.95). The standardized estimates for the various model paths and the associated t -values are shown in Table III and Table IV. All path coefficients (β) were significant ($p < 0.01$).

	M	SD	1	2	3	4	5
1. Satisfaction	5.64	1.14	–				
2. Social norm	3.96	1.63	0.22	–			
3. Personal norm	4.75	1.29	0.45	0.41	–		
4. Preference conflict	3.70	1.38	0.07*	–0.29	0.18	–	
5. Eating behaviour	3.86	1.40	0.19	0.49	0.14	–0.36	–

Note: * $p > 0.05$ (non-significant)

Table II.
Construct means,
standard deviations and
correlations

Path	Proposed model		Modified model	
	Estimate	t -value	Estimate	t -value
H1. Satisfaction → Eating behaviour	0.13	2.40*	0.13	2.35*
H2. Social norm → Eating behaviour	0.40	6.44*	0.38	6.06*
H3. Preference conflict → Eating behaviour	–0.30	–5.55*	–0.26	–4.66*
H4. Personal norm → Satisfaction	0.45	8.46*	0.45	8.46*
H5. Personal norm → Social norm	0.40	7.03*	0.47	8.34*
H6. Personal norm → Preference conflict	0.15	2.86*	0.18	3.28*
Social norm → Preference conflict			–0.37	–6.81*

Note: * $p < 0.01$

Table III.
Structural parameter
estimates

Although our proposed model (Figure 1) proved to be robust, respecification provides an additional way of improving the model (Anderson and Gerbing, 1988). An examination of the modification indices suggested a new relationship in the model: a negative and significant relationship between social norm and preference conflict. The fit indices for the modified model are better than those for the proposed model. CFI increased from 0.95 to 0.96, the NNFI increased from 0.94 to 0.95 and the RMSEA decreased from 0.066 to 0.058. Also, the modified model explained more of the variance in eating behaviour. Thus, this study considers the modified model as the final model after the respecification of the proposed model (see Table III and Table IV), and we intend to use this model when discussing our results.

Satisfaction is significantly positively related to eating behaviour ($\beta = 0.13$, $t = 2.35$, $p < 0.01$), thereby supporting *H1*. Furthermore, social norms are significantly positively related to eating behaviour ($\beta = 0.38$, $t = 6.06$, $p < 0.001$), and the negative relationship between families preference conflict and eating behaviour are also significant ($\beta = -0.26$, $t = -4.66$, $p < 0.01$), providing support for *H2* and *H3*. Personal norm had a significant and positive relationship with satisfaction ($\beta = 0.45$, $t = 8.46$, $p < 0.01$), with social norms ($\beta = 0.47$, $t = 8.34$, $p < 0.01$) and with families' preference conflict ($\beta = 0.18$, $t = 3.28$, $p < 0.01$), thereby supporting *H4-H6*. The modified model suggested a relationship between social norm and preference conflict, which proved to be highly negative ($\beta = -0.37$, $t = -6.81$, $p < 0.01$). The final model explained thirty percentage of the variance in eating behaviour in a family setting ($R^2 = 0.30$).

Discussion

Our study has allowed us to simultaneously analyze how (personal) satisfaction, social factors and preference conflict interact in explaining purchase behaviour in a family context. A first major result of our study is that, while all three constructs have the hypothesized direct effect on behaviour, satisfaction clearly had the least effect.

The strongest effect was observed for social norm, a finding that is in line with some previous applications of the theory of planned behaviour in the food area (Conner *et al.*, 1996; Povey *et al.*, 2001), but different from others where norm had no direct impact on intention to consume food (e.g. Mahon *et al.*, 2006). The second strongest effect was observed for preference conflict: the more conflict is expected in the family related to the consumption in question, the less that behaviour is likely to be performed. While this result is highly plausible, we are not aware of any studies that have investigated the intentional or behavioural outcome of preference conflict in the area of family decision-making, or in the food consumption area.

Model goodness-of-fit statistics

χ^2 (df)	331.06	(113)	283.93	(112)
<i>p</i> -value	0.000		0.000	
CFI	0.95		0.96	
NNFI	0.94		0.95	
RMSEA	0.066		0.058	
PNFI	0.77		0.77	
R^2 Eating behaviour	0.27		0.30	

Table IV.
Structural parameter estimates

However, research has shown that conflict in family decisions is common not only with regard to the consumption of food (Bove *et al.*, 2003), but in family decisions in general (Qualls and Jaffe, 1992). While our study clearly calls for replication with other product categories, there is thus good reason to believe that the diminished role of satisfaction in explaining consumer behaviour could generalize to all purchases that involve family interactions and family conflict. The limitation of satisfaction research has been that it treats purchases – and especially repeat purchases – as an individual decision, where personal satisfaction with good reason can be assumed to be a key determinant. But whenever purchases or consumption are embedded in a family context, it is necessary to extend the individual approach by integrating purchase determinants that capture the aspects of social interaction and conflict. A similar argument could be made for industrial buying decisions that involve more than one decision-maker.

A second major result of our study is that the effect of personal norm on consumption behaviour is fully mediated by other constructs, giving additional support to the feasibility of hierarchical approaches to the explanation of consumer behaviour, like approaches drawing on various versions of a values-attitudes-behaviour hierarchy (e.g. Grunert and Bech-Larsen, 2005; Homer and Kahle, 1988). No previous studies we are aware of have tested the personal norm → satisfaction → consumption/loyalty hierarchy, and the same goes for the mediating roles of social norms and preference conflict. Some of these relationships warrant further theoretical clarification: while the interrelationship between the different norm constructs has been suggested by Ajzen (1991) and recent norm theories (Manstead, 2000), the relationship between personal norms and preference conflict is tested here for the first time and can be interpreted as an activation of preference conflict by personal norms.

The design of the study also involves some limitations. Most notably, the study was designed as a survey study measuring individual perceptions of social factors, including preference conflict, and thus is based on an individualized measure of the social processes occurring in family preference formation and purchase behaviour. It would be desirable to measure the perception of social processes in family preference formation and decision-making by analysing the perception of different family members in dyads or triads, and it would be still more desirable to supplement the study of perceptions with observational studies. Future research should extend our work to products with different degrees of involvement and different degrees of cognitive control of the decision-making process.

Although established measures used in other studies were adopted, other ways of measuring the same constructs may yield different results. In particular, future research should pay more attention to the assessment of the preference conflict construct. Most studies in the area of family decision making do not include indicators of product choice, consumption or behaviour. Attitudinal or intentional loyalty is foremost common in studies of the satisfaction-loyalty relationship. Our study relies on a self-reported measure of consumption behaviour and would benefit from additional measures of actual consumption. It should also be emphasized again that this study provides some first evidence on the relationships between norms, satisfaction, conflicts and consumption behaviour, but its causal interpretation requires a more rigorous experimental rather than cross-sectional design.

Finally, the study is limited by the concrete behaviour to be explained, namely buying and consuming fish as a family meal. As noted above, replications with other

product categories are desirable, concentrating on those where family conflict either has been documented earlier or can plausibly be expected.

Our results have important managerial implications for the use of satisfaction data in marketing. Customer satisfaction is – rightly – treated as a major strategic variable in managing customer relationships, based on the assumption that satisfaction is related to loyalty and that creating and maintaining satisfaction is thus an important building block in creating and maintaining a loyal customer base (Oliver, 1997; Szymanski and Henard, 2001). As our results show, there are consumption decisions where individual satisfaction, while important, is not the major factor in explaining purchase behaviour. Purchase behaviour is often embedded in a social context (Miller, 1998), where preferences are negotiated and where consideration for others preferences may supersede own satisfaction with previous behaviour (Fournier and Mick, 1999). Marketers must understand the importance of the family as a unit of consumption, as well as how individual satisfaction, norms and conflicts interact in explaining consumption, loyalty or purchase decisions. Leaving out social, moral and conflict measures in studies of satisfaction-loyalty/consumption relationships may overestimate the importance of satisfaction in explaining loyalty because of the omitted variance of these “other” constructs. This does not mean that satisfaction does not play a major role in making consumption decisions – but it means that it is not the individual satisfaction of the main decision maker that may be a strategic variable, but rather the way in which a diverse set of satisfactions of various family members feed into the processes of social interaction.

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Fonte: *European Journal of Marketing*, v. 44, n.7/8, p.1165 - 1181, 2010. [Base de Dados]. Disponível em: <<http://www.emeraldinsight.com>>. Acesso em: 18 ago. 2010.