

“Children's influence on family decision making”

AUTHORS

Anne Martensen
Lars Grønholdt

ARTICLE INFO

Anne Martensen and Lars Grønholdt (2008). Children's influence on family decision making. *Innovative Marketing* , 4(4)

RELEASED ON

Tuesday, 30 December 2008

JOURNAL

"Innovative Marketing "

FOUNDER

LLC “Consulting Publishing Company “Business Perspectives”



NUMBER OF REFERENCES

0



NUMBER OF FIGURES

0



NUMBER OF TABLES

0

© The author(s) 2025. This publication is an open access article.

Anne Martensen (Denmark), Lars Grønholdt (Denmark)

Children's influence on family decision making

Abstract

This article examines parents' perception of their children's (5-13-year-olds) participation in and general influence on the family decision making process when purchasing in 14 different product categories. Based on a survey findings indicate that children exercise quite strong influence on the family decision making processes, particularly for products relevant to them (like cereal, juice, soft drinks, and mobile phones). Children's influence varies with subdecision stages and children who are initiators influence the subsequent decision making more than non-initiators. Older children influence more than younger children, but gender does not contribute significantly to parents' perception of their children's influence. Thus, marketers should explicitly acknowledge children's role in the family decision making.

Keywords: children, family decision making, buying roles, influence.

Introduction

The family has been identified as the most important decision making and consumption unit (Assael, 1998). Therefore the domain has attracted the interest of marketers and marketing academics over the years (e.g., Kim and Lee, 1997; Moore et al., 2002; Shoham & Dalakas, 2005). Much research carried out on children's influence in family decision making emphasizes that children have at least some influence on decisions for a wide array of products and some even report that children have an increasing role in family purchase decisions (Ahuja et al., 1998; Atkin, 1978; Berkman et al., 1997; Bery & Pollay, 1968; Caruana & Vassallo, 2003; Chavda et al., 2005; Darley & Lim, 1986; Davis, 1976; Ferber, 1973; Isler et al., 1987; Jenkins, 1979; Mangleburg, 1990; McDonald, 1980; Miller et al. 1982; Nelson, 1978; Scanzoni, 1980; Swinyard & Sim, 1987; Szybillo et al., 1977; Tufte, 2003; Ward & Wackman, 1972). As children's role in family decisions increases, so does the need for research that includes children (Foxman et al., 1989, p. 482).

The purpose of this paper is to examine parents' perception of their children's (5-13-year-olds) participation in and general influence on the family decision making process when purchasing in 14 different product categories. Focus is on three subdecision stages: suggesting buying the product category, deciding on the brand, and deciding on the model. Based on a review of the literature within the area of family decision making, our goal is to study whether the type of influence characterizing a purchase decision will depend in part on product type, in part of the subdecision stage, and in part of the children's buying role (initiator or not), age and gender. These different variables are proposed to explain children's impact on family decisions. Hypotheses about chil-

dren's influence patterns and various variables are developed, tested and discussed.

1. Children's age and gender

Piaget (1970), Selman (1980), Barenboim (1981) and John (1999) have among others studied children's consumer socialization process, and they all base their studies on some form of age grouping, which varies slightly depending on the individual author. Their conclusion is that a child's age is an important factor with regard to the child's influence on family decision making. Most studies have found that older children have significantly more influence than younger ones (Atkin, 1978; Beatty & Talpade, 1994; Darley & Lim, 1986; Hansen et al., 2002; Jenkins, 1979; McNeal, 1969; Mehrotra & Torges, 1977; Nelson, 1978; Rust, 1993; Swinyard & Sim, 1987; Ward & Wackman, 1972).

These results are among other things due to older children's greater cognitive ability (John, 1999; Mussen et al., 1969; Mussen, 1973; Piaget, 1970), as compared to younger children. Younger children (i.e., ages 3-11) clearly affect parents' decision making by 'simply asking' (Isler et al., 1987). Children's ability to perceive several perspectives and to understand perspectives other than their own improves gradually, and they become capable of adapting their argumentation to the situation at hand. Thus, with age, children gain a stronger position in persuasion and negotiation (John, 1999, p. 185). Adolescents may employ various more or less advanced strategies, since they, according to Chavda et al. (2005, p. 68), have greater knowledge of products, demonstrate more understanding of economic concepts (Strauss, 1952), develop consumer skills related to information processing (Wackman & Wartelle, 1977; John 1981), and are more likely to model their consumer behavior on that of adults (Lerner & Shea, 1982).

Hansen & Halling (2002, p. 255) do not find any significant differences in girls' and boys' purchase

© Anne Martensen, Lars Grønholdt, 2008.

Acknowledgment: The authors thank Managing Director Michael Thim, Initiative Universal Media, Copenhagen, Denmark, for providing the data used in the study.

influence on groceries, beverages, and candy. The authors only find significant differences for products clearly aimed at either girls or boys (perfume, hair styling products, hair color, sanitary napkins, and shaving products).

Based on the above discussion, it is hypothesized that:

H1: Older children have significantly more influence on the family decision making process than younger children.

H2: The impact of the child's gender will vary depending on the product category. Boys will have significantly more influence than girls on technical products such as TVs, cars, mobile phones and computer equipments.

2. Buying roles

A purchase decision is composed of a sequence of decisions, and different family members may play different roles at different stages (e.g., Darley & Lim, 1986; Davis, 1970; Blackwell, Miniard & Engel, 2006; Jenkins, 1979; Lackman & Lanasa, 1993; Wasson, 1978). We will focus on the influencers in our study. In general, the roles are likely to vary between families, with demographic variables, different product types, time, and even individual decisions (Verma & Kapoor, 2003, pp. 8-9). This variation can be observed both within a single role and across roles. A priori we will therefore expect children's influence to vary across the different stages of the decision making process and across product categories, and that their roles will not be permanent or mutually exclusive. Furthermore we will a priori expect there to be a positive relationship between taking the initiative to a decision and subsequently influencing the decision.

Influence is inferred when one person acts in such a way as to change the behavior of another in some intended manner (Cartwright, 1959). Thus children's influence is characterized by actions that make a difference during one or more of the family decision stages. An influencer in a family does not necessarily have expertise, and he/she can influence one or more of the decision making stages in varying roles and with varying impacts. Therefore it is hypothesized that:

H3: The impact of child age varies, depending on the stage of the decision making process.

H4: Children who are the initiators of the family decision making process have significantly more influence in the subsequent decision making than those who are not initiators.

3. Product type and product involvement

The degree of influence exerted by children depends on how interested or involved the children are in the

product or purchase (Chavda et al., 2005; Belch et al., 1985). Products for the children's own use are likely to be perceived as the most personally relevant. Hence the child is expected to have the strongest influence on decisions for products which they are directly involved in consuming (Foxman et al., 1989; John, 1999).

In contrast, children are expected to have significantly less influence when purchases are not for self-use or have low personal relevance for the child; the child may not be motivated to influence these decisions, and thereby a moderate influence is assumed.

Children's influence is also expected to be lower for family products that involve substantial financial outlays such as TVs and cars. Due to the financial risk associated with these family products, parents will more likely prefer to make these decisions without permitting the child to influence them to any appreciable degree. Children are thus assumed to have least influence on durable and expensive products (Belch et al., 1985; Foxman & Tansuhaj, 1988; Foxman et al., 1989; Isler et al., 1987; Swinyard & Sim, 1987).

However, past research indicates mixed results. Results that support these a priori hypotheses include Szybillo et al. (1977), Hansen & Halling (2002), Lackman & Lanasa (1993). Results that contradict the a priori hypotheses show that children not only influence the purchase of products that are directly consumed only by them, but a much wider range of products for use by the entire family (Foxman et al., 1989; Kim et al., 1991). More recent studies even indicate that children's influence is not insignificant even on expensive and durable consumer goods as well as more technical products (Rice, 2001; Verma & Kapoor, 2003; Lackman & Lanasa, 1993). Based on this discussion, it is hypothesized that:

H5: Children have the greater active purchase influence on typical children's products and products for self-use (juice, soft drinks, cereals) than on product categories that relate to the family in general.

H6: Children have less influence on expensive durables associated with high financial risk (TVs, cars, computer equipments, etc.) than on non-durables.

4. Decision and subdecision stages

Children's degree of influence on purchase decisions is also affected by the stage of the decision process (Belch et al., 1985). Previous findings suggest that children tend to have the strongest influence at the problem recognition stage of the decision process (Beatty & Talpade, 1994; Belch et al., 1985; Swinyard & Sim, 1987) and that the influence declines significantly with the choice stage (Belch et al., 1985; Filiatraut & Ritchie, 1980; Hempel, 1974;

Nelson, 1978; Shoham & Dalakas, 2003; Swinyard & Sim, 1987; Szybillo & Sosanie, 1977). For instance, children’s influence is lowest in the subdecisions of where to purchase (Belch et al., 1985; Jenkins, 1979; Foxman et al., 1989), where to gather information (Darley & Lim, 1986), and how much to spend (Belch et al., 1985; Darley & Lim, 1986; Jenkins, 1979; Nelson, 1978; Szybillo & Sosanie, 1977). Parents prefer to do the more instrumental activities for themselves; roles that involve doing the tasks that affect the final buying decision, such as the timing of a purchase, location of a purchase, or determining the amount spent. On the other hand, parents allow children to have increasing influence on the more expressive subdecisions, e.g., product attributes such as color, model, and brand choices (Belch et al., 1985; Darley & Lim, 1986; Jenkins, 1979; Kenkel, 1961; Nelson, 1978; Szybillo & Sosanie, 1977). One reason for children’s lower influence relative to their parents’ in later stages of the decision process may be that children lack the experience necessary to make informed decisions for instrumental activities. Another reason could be that parents have greater financial investments in most durable purchases (Beatty & Talpade, 1994). So parents will exert power where it counts – in the actual decision. Hence, it is hypothesized that:

H7: Children are to a greater degree initiators rather than influencers on the family’s purchase decisions, independent of the subdecision stage.

H8: Children are less involved in later subdecisions regarding the brand and model, than in early subdecisions regarding the category.

5. Methodology

In order to test the hypotheses an Internet survey

has been conducted during the fall of 2005 with a representative sample of 779 Danish parents. Since focus is on 5-13-year-old children, it is one of the parents, who do the assessments. The parent is asked to evaluate whether the child is the initiator (yes or no) as well as the degree of influence. The influence is measured on a four category ordinal scale: decision made entirely by the child; the child influences the decision; parents take the child into account; decision made entirely by parents. The initiation and influence are evaluated for each of three subdecisions: a) suggesting buying the product category; b) choice of brand; and c) choice of model. Measuring children’s influence on brand and model decision is also considered by Shoham & Dalakas (2003, p. 243), while suggesting buying the product category is studied by Beatty & Talpade (1994, p. 335).

Evaluation is carried out product category by product category. In total, 14 product categories are selected, that included both durables (e.g., cars, vacations) and non-durables (e.g., toothpaste, soft drinks). The parents were only asked to evaluate recent purchases (within the last three months for non-durables and within the last three years for durables).

6. Results and discussion

A cross-tabulation of the child as initiator and the child’s role as influencer for the 14 product categories and three subdecision stages has been made in order to identify the child’s impact on the family decision process for different products. The results are summarized in Table 1. The heading “active influence” refers to the responses of parents who indicated “the child influences the choice/decision” or “decision made entirely by the child”.

Table 1. Influence of children on specific product types and decision making areas as perceived by parents

	Total (N)	Suggesting buying the product category				Deciding on brand				Deciding on model			
		Initiation (%)	Active influence (%)	Take the child into account (%)	The child has no influence (%)	Initiation (%)	Active influence (%)	Take the child into account (%)	The child has no influence (%)	Initiation (%)	Active influence (%)	Take the child into account (%)	The child has no influence (%)
Juice	578	40.0	28.7	48.3	23.1	42.1	30.2	33.6	36.2	58.3	46.4	35.0	18.6
Ketchup	626	28.0	23.9	23.7	52.5	24.6	22.6	19.0	58.5	28.6	21.7	22.2	56.0
Jam	491	23.5	23.1	31.1	45.6	24.9	22.7	25.4	52.0	40.7	39.0	33.7	27.4
Bread	765	25.4	24.8	33.3	41.9	32.6	26.7	36.1	37.2	36.5	30.7	39.5	29.8
Cereals	712	59.1	43.6	32.4	24.0	58.6	42.6	33.8	23.6	63.5	37.2	34.7	28.1
Vitamin pills	283	16.0	14.5	25.2	60.4	18.0	18.2	26.9	54.9	31.6	33.9	31.6	34.5
Soft drinks	614	42.9	25.8	35.4	38.9	44.1	31.5	35.8	32.7	51.5	42.2	38.6	18.2
Shampoo	-	-	-	-	-	15.1	15.4	24.6	60.0	8.5	9.7	28.1	63.2
Toothpaste	-	-	-	-	-	32.5	28.7	33.7	37.5	30.2	28.8	35.7	35.6
Mobile phones	592	27.4	21.0	10.2	68.9	26.1	20.0	8.7	71.3	25.3	20.9	7.2	72.4
Cars	357	5.6	1.2	10.2	87.6	6.6	1.5	4.8	93.7	8.1	4.3	12.0	83.8
Vacations	408	20.0	19.4	42.2	38.4	20.8	22.8	43.4	33.8	11.6	15.2	44.7	40.2
TVs	312	13.7	11.3	11.0	77.6	4.0	3.4	5.6	90.9	4.0	3.8	5.5	90.7
Computer equipment	518	16.8	10.8	16.6	72.6	6.6	4.0	8.4	87.6	7.1	4.2	7.7	88.1

Depending on the product category and the specific subdecision stages, parents' perception of children's influence varies greatly.

Firstly, children's involvement is primarily at the first stage, the initiation stage. This means that children have a powerful role in family decision making – very often, they initiate potential purchases. This is the case of 14, 11 and 11 out of 14 product categories at the category stage, the brand stage and the model stage respectively. Only in 6 out of 40 subdecisions the share of children who actively influence the purchase is greater than the share that takes the initiative to the purchase. Hypothesis H7 is hereby supported: children are to a greater degree initiators rather than influencers in their family's purchase decisions, independent of the subdecision stage.

Secondly, children tend to suggest buying the product category, brand and model much more often and be much more influential with regard to products typically aimed at children (e.g., juice, soft drinks, cereals) than product categories aimed at the family in general (vitamin pills, shampoo and toothpaste). Cereals is absolutely the category for which children initiate and influence decisions most; approx. 6 out of 10 children initiate the purchase, while 4 out of 10 children have an impact on each of the three subdecision stages. Children's initiation and influence on juice and soft drinks increases through the three subdecision stages. Although one may expect such influence for children's products, it is worth noticing that every fifth child is also perceived by their parents to be involved in the initiation stage for family vacations as well as the destination. Hypothesis H5 is hereby confirmed: children exercise the greatest active purchase influence on typical children's products (juice, soft drinks, cereals) and products for self-use, and somewhat less influence on decisions to purchase non-durable products that are more broadly directed at the family as a whole.

Thirdly, it is also worth noting that in most durable product categories, parents do not perceive children to exert a high amount of active influence in the decision making. Active influence at the category level ranges from 1% to 21%, at the brand level

from 2% to 20%, and at the model level from 4% to 21%. In comparison, the numbers for non-durables are 15% to 44% at the category level, 15% to 43% at the brand level, and 10% to 42% at the model level. This is in accordance with Belch et al. (1985), who also found that the child's influence was minimal for most of the major purchase decisions. Since the responsibility for shopping and purchasing of most household products lays with the parents, this explained, according to Belch et al. (1985), why they were the most dominant. We agree with this explanation.

For durables, parents perceive their children to exert most influence on decisions related to mobile phones and vacations, and least influence on decisions related to cars and computer equipment. This is in accordance with the results seen in Jenkins (1979, p. 414). Hypothesis H6 is hereby confirmed: children exercise less influence on expensive and durable consumer goods and other products for which the financial risk is high (TV, cars, computer equipment, etc.) than on non-durables.

Finally, we can not confirm hypothesis H8: children are less involved in subdecisions regarding the brand and model, than in subdecisions regarding the category. Children only exercise greater active influence on the category than on the brand or the model in half or less of the product categories (in 6 and 4 cases out of 12 respectively); thus, there is no difference in how active children are as influencers on the three levels. There are of course, as indicated above, differences in the level of influence between the different product categories.

The family decision making literature provides insight into which variables might be related to various influence patterns. Let us now examine whether some of these variables can explain perceived children's influence for our product categories and subdecision stages. The dependent variable "parent perceived influence of children in a given subdecision" is ordinal, with four categories as discussed earlier, and we want to explain perceived child influence patterns as a function of three independent variables:

Variable	Levels	Variable	Levels	Variable	Levels
X1 = Initiative	1 = Initiator 2 = Not initiator	X2 = Child's age	1 = 5-7 year-olds 2 = 8-10 year-olds 3 = 11-13 year-olds	X3 = Child's gender	1 = Boy 2 = Girl

Since the dependent variable is ordinal, the appropriate statistical technique is Ordinal Regression (OR), and we use the SPSS OR procedure, or PLUM (Polytomous Universal Model), and select the logit link function (Norusis, 2005, pp. 69-95). OR models are developed to investigate the relationship of these independent variables to per-

ceived children's influence in decision making within 12 different product categories (data are not available for toothpaste and shampoo on the category level). Since there are three subdecision stages, the dependent variable produces three ordinal regression equations per product category. The research questions now addressed are whether

the combination of the three independent variables is able to explain parents' perception of children's influence in different product category decisions. The overall hypothesis tested is that children's influence in various product category decisions is independent of the set of variables X1-X3. This overall hypothesis is a synthesis of hypotheses H1-H4.

Table 2 contains the estimated coefficients and p-values (one-tailed test) for the significant independent variables for the 12 product categories and the three subdecision stages. All hypotheses are tested using a 0.05 level of significance. Also, the Nagelkerke's R²-like statistics (Norusis, 2005, p. 81) are shown.

Table 2. Estimated coefficients and p-values (one-tailed test) for significant independent variables for 12 product categories and the three subdecision stages

Sub-decision	R ²	Independent variable(s)	Estimate	p-value	Sub-decision	R ²	Independent variable(s)	Estimate	p-value
<i>Juice</i>					<i>Cereals</i>				
Category	0.155	Age Initiation	-0.662; -0.195 1.412	0.001; 0.151 0.000	Category	0.223	Age Initiation	-0.463; -0.421 1.825	0.005; 0.006 0.000
Brand	0.254	Age Initiation	-0.814; -0.539 1.854	0.000; 0.002 0.000	Brand	0.182	Initiation	1.680	0.000
Model	0.172	Initiation	1,621	0.000	Model	0.172	Initiation	1.686	0.000
<i>Ketchup</i>					<i>Vitamin pills</i>				
Category	0.320	Age Initiation	-0.812; -0.738 2.363	0.000; 0.000 0.000	Category	0.223	Initiation Gender	2.538 0.405	0.000 0.045
Brand	0.392	Age Initiation	-0.976; -0.852 2.793	0.000; 0.000 0.000	Brand	0.104	Initiation	1.568	0.000
Model	0.448	Age Initiation	-1.403; -0.754 3.019	0.000; 0.000 0.000	Model	0.327	Age Initiation	0.265; 0.531 2.519	0.172; 0.027 0.000
<i>Jam</i>					<i>Soft drinks</i>				
Category	0.245	Gender Initiation	0.327 2.311	0.037 0.000	Category	0.223	Age Initiation	-0.838; -0.455 1.679	0.000; 0.007 0.000
Brand	0.375	Initiation	3.054	0.000	Brand	0.269	Age Initiation	-1.113; -0.472 1.835	0.000; 0.010 0.000
Model	0.308	Initiation	2.331	0.000	Model	0.195	Age Initiation Gender	-0.761; -0.119 1.504 0.280	0.038; 0.000 0.000 0.257
<i>Bread</i>					<i>Mobile phones</i>				
Category	0.288	Age Initiation	-0.635; -0.638 2.295	0.000; 0.000 0.000	Category	0.601	Age Initiation Gender	-2.473; -0.580 4.118 0.479	0.000; 0.017 0.000 0.022
Brand	0.333	Age Initiation	-0.670; -0.354 2.481	0.000; 0.018 0.000	Brand	0.565	Age Initiation	-2.448; -0.518 3.810	0.000; 0.031 0.000
Model	0.290	Age Initiation	-1.016; -0.566 2.051	0.000; 0.001 0.000	Model	0.514	Age Initiation	-1,992; -0.185 3.546	0.000; 0.245 0.000
<i>Cars</i>					<i>TV</i>				
Category	0.059	Initiation	1.860	0.000	Category	0.285	Age Initiation Gender	-0.249; -0.677 2.879 0.631	0.287; 0.037 0.000 0.021
Brand	0.057	Initiation	1.848	0.001	Brand	0.298	Age Initiation	-0.233; -1.583 4.255	0.363; 0.025 0.000
Model	0.077	Initiation	1.848	0.000	Model	0.332	Age Initiation	0.207; -1.595 4.793	0.372; 0.028 0.000
<i>Vacations</i>					<i>Computer equipment</i>				
Category	0.144	Age Initiation	-0.631; 0.138 1.595	0.008; 0.269 0.000	Category	0.420	Age Initiation	-1.895; -0.700 3.206	0.000; 0.005 0.000
Brand (location)	0.152	Initiation	1.859	0.000	Brand	0.288	Age Initiation	-2.672; -0.584 3.081	0.003; 0.053 0.000
Model	0.149	Age Initiation	-0.483; 0.328 2.072	0.038; 0.084 0.000	Model	0.325	Age Initiation	-1.049; -0.680 3.742	0.039; 0.042 0.000

As is always the case with categorical predictors in models with intercepts, the number of coefficients displayed is one less than the number of categories of the variable. In our case, the reference category is the highest value, and has a coefficient of 0.

The overall test of the null hypothesis, saying that the coefficients for all of the variables in the model are 0, has a p-value less than 0.0005 for all our OR models. These values indicate strong significance of the models and good overall model appropriateness.

The strength of association between the dependent variable and the independent variables can be measured by the Nagelkerke R^2 , which is a pseudo R^2 , comparable to the R^2 measure used in multiple regression (Norusis, 2005, p. 81). Nagelkerke's pseudo R^2 shows great variation between product categories in Table 2. The overall mean of the 36 Nagelkerke R^2 's is 0.286.

Mobile phones are the product category with the highest R^2 ; R^2 is 0.60 at the category level, 0.57 at the brand level and 0.51 at the model level.

Cars, on the other hand, are the category with the absolutely lowest R^2 values, which should be kept in mind when interpreting the data below.

Based on the estimates and p-values in Table 2 we see that *initiation* is the primary independent variable across product categories and subdecision stages. Initiation is an independent variable for all 12 product categories at all three subdecision stages and since the p-values < 0.0005, the hypotheses are accepted for all analyses.

Examining the effects of children's initiation on their influence, we find strong positive initiation effects, but with great variation between the categories.

Children who are initiators have most influence on TVs, mobile phones and computer equipment, and least influence on juice, soft drinks and cereals.

Generally speaking, we find that children who are the initiators of the family decision making process also have significantly more influence in the subsequent decision making than those who are not initiators. Initiation thus appears to be related to influence. Hypothesis H4 is hereby confirmed.

The *child's age* is an independent variable in 9 out of 12 category decisions, 7 out of 12 brand decisions, and 8 out of 12 model decisions. The child's age is thus a predictor in all three decision stages for ketchup, bread, soft drinks, mobile phones, TVs, and computer equipment.

Looking at the impacts, we find that all significant impacts are negative; older children have significantly more influence on the family decision making process than younger children. One exception is found, namely vitamin pills, where the 8-10 year-olds have significantly more influence on the purchase decision than the oldest age group. One explanation could be that parents of children in this age group are still somewhat concerned about their children's health and make sure that their children get their daily vitamin pill, whereas parents of older children are less concerned. This may make 8-10 year-olds more aware of the taste and size of their daily vitamin pill. This result is in accordance with

Hansen & Halling (2002, p. 28), who discuss loss of interest in relation to a number of categories of goods, such as vitamin pills, bread, cheese, fruit, and vegetables. Parents believe especially small children should have these products as part of their daily consumption, but children reject them to a greater or lesser extent as their influence increases. The fact that the use of these staples decreases with age may indicate that children develop very different tastes in food as they grow up. So all in all, hypothesis H1 is confirmed: older children have significantly more influence on the family decision making process than younger children.

Next, our findings indicate that for juice, ketchup, bread and TV (for the 8-10 year-olds) the negative coefficients increase by subdecision stages, meaning that older children's influence increases from category to brand to model. The opposite is the case with mobile phones, TV (for the 5-7 year-olds), and vacations, where the older children's influence decreases as the decision making becomes more specific. The result for beverages can be explained in part by the fact that children acquire new skills and tastes as they grow older. Juice is dropped in favor of soft drinks (see Hansen et al., 2002, p. 28). Hereby hypothesis H3 is confirmed: the impact of child age varies, depending on the stage of the decision making process.

Hypothesis H2, stating that boys will have significantly more influence on decisions related to technical products than girls, can only be partly confirmed. It is confirmed for mobile phones and TVs at category level, but the hypothesis is rejected for cars and computer equipment.

In general, *gender* does not seem to be an important independent variable; gender is only a significant independent variable in 5 out of the 36 OR models. So the impact of the child's gender seldom varies with the product category.

Conclusion and contribution to the field

Findings indicate that children exercise quite strong influence on family decision making processes in connection with purchases, particularly in the case of products relevant to them (like cereal, juice, soft drinks, and mobile phones) and during the initiation stage. Children's influence also varies with subdecision stages. The gender of the children does not contribute significantly to parents' perception of their children's influence.

Ordinal regression models investigate the relationship between perceived child influence and various explanatory variables. According to parents' perception, increased child influence is positively correlated with children's age; older children have sig-

nificantly more influence on family decision making than younger children. Further more, initiation appears to be related to influence; children who are initiators of the family decision making process have significantly more influence in the subsequent decision making than those who are not initiators.

All in all, our study shows that children influence the family decision making process, and therefore it is important that children's role in family decision making is explicitly acknowledged.

This study contributes to the field in three areas: 1) it includes new product categories not previously seen within the field, including a few more technical products. The technical products are interesting in that as children grow up they often acquire greater technical knowledge of these products and become more competent and better at using them than their parents; 2) focus is on children aged 5-13. Few studies look at children as young as five, and this makes it possible to study how the development of children's consumer socialization process influences the family's decisions; and 3) no studies have been conducted and reported on children's influence on family decision making in Denmark or the other Scandinavian countries.

Research limitations and future directions

In our study we use parents as respondents and thus reveal parents' perceptions of children's influence. These perceptions may or may not be accurate. It would be relevant to include the children's perceptions as well, and then compare these perceptions.

References

1. Ahuja, R., L. Capella & R. Taylor (1998). Child influences, attitudinal and behavioural comparisons between single parent and dual parent households in grocery shopping, *Journal of marketing theory and practice*, Winter, pp. 48-63.
2. Assael, H. (1998). *Consumer behaviour and marketing action*, Sixth edition, South-Western College Publishing, Cincinnati, Ohio.
3. Atkin, C.K. (1978). Observation of parent-child interaction in supermarket decision making, *Journal of marketing*, October, pp. 41-45.
4. Barenboim, C. (1981). The development of person perception in childhood and adolescence: From behavioural comparisons to psychological constructs to psychological comparisons, *Child Development*, 52 (March), pp. 129-144.
5. Belch, G., M.A. Belch & G. Ceresino (1985). Parental and teenage influences in family decision making, *Journal of business research*, 13 (April), pp. 163-176.
6. Barenboim, C. (1981). The development of person perception in childhood and adolescence: From behavioural comparisons to psychological constructs to psychological comparisons, *Child Development*, 52 (March), pp. 129-144.
7. Beatty, S.E. & S. Talpade (1994). Adolescent influence in family decision making: A replication with extension, *Journal of Consumer Research*, 21 (September), pp. 332-341.
8. Berey, L.A. & R.W. Pollay (1968). The influencing role of the child in family decision making, *Journal of Marketing Research*, 5 (February), pp. 70-72.
9. Berkman, H.W., Lindquist, J.D., Sirgy, M.J. (1997). *Consumer Behavior*, NTC Publishing Group, Chicago, IL.
10. Blackwell, R.D., Minard, P.W. & Engel, J.F. (2006). *Consumer Behavior*, Tenth Edition, Canada:Thomson / South-Western.
11. Cartwright, D. (1959). *Studies in social power*, Ann Arbor: Research Center for group dynamics, University of Michigan.

It may not be valid to measure children's influence in an aggregate manner when a family has more than one child. Roberts et al. (1981) urged that research on children's influence should focus on measuring individual children's influence. We agree with this.

The differences noted across products categories, subdecision stages and different explanatory variables suggest the difficulty of generalizing based on results from relatively few product categories. One can question how replicable our findings are for other product categories.

Practical implications

The knowledge of family buying roles is important in developing appropriate marketing strategies. The marketer can use this knowledge to identify the family members who play the roles of initiator and influencer for particular products and then develop an appropriate communication strategy targeted at these members to evoke the desired response.

Since children tend to influence product decisions that are relevant to them, marketers must appeal to children as much as parents. Furthermore children's involvement with a product category has a positive impact on children's level of influence on family decision making. Therefore marketers could try to identify the types of products that appeal to children. By doing so, they could plan more child-friendly marketing activities, making it easier to connect with the children in order to increase their involvement. The trick is to achieve an effective balance between responsible marketing and effective marketing.

12. Caruana, A. & R. Vassallo (2003). Children's perception of their influence over purchases: the role of parental communication patterns, *Journal of Consumer Marketing*, 20 (1).
13. Chavda, H., M. Haley & C. Dunn (2005). Adolescents' influence on family decision making, *Young Consumers*, quarter 2, pp. 68-78.
14. Corfman, K. (1997). Children as decision makers, *Advances in Consumer Research*, 24, pp. 125-127.
15. Darley, W.K. & J.-S.Lim (1986). Family decision making in leisure-time activities: An exploratory investigation of the impact of locus of control, child age influence factor and parental type on perceived child influence, pp. 370-374.
16. Davis, H.L. (1970). Dimensions of marital roles in consumer decision making, *Journal of Marketing Research*, 7 (May), pp. 168-177.
17. Davis, H.L. (1976). Decision making within the household, *Journal of Consumer Research*, 2 (March), pp. 261-275.
18. Ferber, R. (1973). Family decision making and economic behaviour: A review, In E. Sheldon (ed.), *Family Economic Behavior*, Philadelphia: J.B. Lippincott.
19. Foxman, E.R., Tansuhaj, P.S., Ekstrom, K.M. (1988). Adolescents' and mothers' perceptions of relative influence in family purchase decisions: Patterns of agreement and disagreement, *Advances in Consumer Research*, 15, pp. 449-453.
20. Foxman, E.R., Tansuhaj, P.S., Ekstrom, K.M. (1989a), Family members' perceptions of adolescents' influence in family decision making, *Journal of Consumer Research*, 15, pp. 482-91.
21. Foxman, E.R., Tansuhaj, P.S., Ekstrom, K.M. (1989b), Adolescents' influence in family purchase decisions: a socialization perspective, *Journal of Business Research*, 18, pp. 159-72.
22. Hansen, F., Martensen, A., Halling, J., Lauritsen, G.B., Nielsen, J.C. & Puggard, B. (2002). *Børns opvækst som forbrugere*, Copenhagen, Denmark: Samfundslitteratur (in Danish).
23. Hansen, F. (2002). *Studiet af børn som forbrugere*. In Hansen, F., Martensen, A., Halling, J., Lauritsen, G.B., Nielsen, J.C. & Puggard, B., *Børns opvækst som forbrugere (9-26)*. Copenhagen, Denmark: Samfundslitteratur (in Danish).
24. Hansen, F. & J. Halling (2002). *Børn og unges forbrug*. In Hansen, F., Martensen, A., Halling, J., Lauritsen, G.B., Nielsen, J.C. & Puggard, B., *Børns opvækst som forbrugere (27-64)*. Copenhagen, Denmark: Samfundslitteratur (in Danish).
25. Hempel, D.J. (1974). Family buying decisions: A cross-cultural perspective, *Journal of Marketing Research*, 11 (August), pp. 295-305.
26. Isler, L., E.T Popper & S. Ward (1987). Children's purchase request and parental responses from a diary study, *Journal of Advertising Research*, 27 (October/November), pp. 28-39.
27. Jenkins, R.L. (1979). The influence of children in family decision making: Parents' perceptions, *Advances in Consumer Research*, 6, Ann Arbor, MI: Association for consumer research, pp. 413-418.
28. John, R.D. (1981). Age differences in children's responses to television advertising: an information processing approach, *Journal of Consumer Research*, (June), pp. 144-153.
29. John, R.D. (1999). Consumer socialization of children: A retrospective look at twenty-five years of research, *Journal of Consumer Research*, 26, pp. 183-213.
30. Kenkel, W.F. (1961). Decision-making and the life cycle: Husband-wife interaction in decision making and decision choices, *Journal of Social Psychology*, 54 (August), pp. 255-262.
31. Kim, C., Lee, H. & Hall, K. (1991). *A study of adolescents' power, influence strategy, and influence on family purchase decisions*, in 1991 AMA Winter Educators' Proceedings, ed. Terry L. Childers et al., Chicago: American Marketing Association, pp. 37-45.
32. Kim, C. & Lee, H. (1997), Development of family triadic measures for children's purchase influence, *Journal of Marketing Research*, August, 34, pp. 307-21.
33. Lackman, C. & J.M. Lanasa (1993). Family decision making theory: An overview and assessment, *Psychology & Marketing*, 10 (2), pp. 81-93.
34. Lerner, R. & J. Shea (1982). *Social behaviour in adolescence*, In Benjamin Wolman (ed.), *Handbook of Development Psychology*. Englewood Cliff, NJ: Prentice-Hall, pp. 503-525.
35. Mangleburg, T.F. (1990), Children's influence in purchase decisions: a review and critique, *Advances in Consumer Research*, Association for Consumer Research, Ann Arbor, MI, Vol. 17, pp. 813-25.
36. McDonald, G.W. (1980). Family power: The assessment of a decade of research, 1970-1979, *Journal of marriage and the family*, 42, (November), pp. 841-854.
37. McNeal, J.Y. (1969). *An exploratory study of the consumer behaviour of children*, In Dimensions of Consumer Behavior, ed. J.M. McNeal, New York: Appleton-Century-Crofts, 432-451.
38. Mehrotra, S. & S. Torges (1977). Determinants of children's influence on mothers buying behaviour, *Advances in Consumer Research*, 4, pp. 55-60.
39. Miller, B.C., Rollins, B.C. & Thomas, D.L. Thomas (1982). On methods of studying marriages and families, *Journal of Marriage and the Family*, 44, pp. 851-873.
40. Moore, E.S., Wilkie, W.L., Lutz, R.J. (2002), Passing the torch: intergenerational influences as a source of brand equity, *Journal of Marketing*, 66, pp. 17-37.
41. Mussen, P.H. (1973). *The psychological development of the child*, Englewood Cliffs, NJ:Prentice Hall.
42. Mussen, P.H., Conger, J.J. & Kagan (1969). *Child development and personality*, New York: Harper & Row.

43. Norusis, M.J. (2005). *SPSS 14.0. Advanced Statistical Procedures Companion*. Upper Saddle River, New Jersey: Prentice Hall.
44. Nelson, J.E. (1978). Children as information sources in family decision to eat out, *Advances in Consumer Research*, W.L. Wilkie (ed.), 6, Ann Arbor, MI: Association for Consumer Research, pp. 419-423.
45. Piaget, J. (1970). The stages of intellectual development of the child and Piaget's theory. In P. Mussen, J. Conger & Kagan (ed.), *Readings of child development and personality*, New York: Harper and Row.
46. Rice, F. (2001). Superstars of spending: marketers clamor for kids, *Advertising Age*, pp. 1-10.
47. Roberts, M.L., Wortzel, L.H., Berkeley, R.L. (1981), Mothers' attitudes and perceptions of children's influence and their effect on family consumption, *Advances in Consumer Research*, Association for Consumer Research, Ann Arbor, MI, 8, pp. 730-5.
48. Rust, L.W. (1993). Observations: parents and children shopping together: a new approach to the qualitative analysis of observational data, *Journal of Advertising Research*, (July/August), pp. 65-70.
49. Scornzoni, J. & Szinovacz, M. (1980). *Family decision-making: A development sex role model*, Beverly Hills, CA: Sage. Publications.
50. Selman, R.L. (1980). *The growth of interpersonal understanding*, New York:Academic Press.
51. Shoham, A., Dalakas, V. (2003), Family consumer decision making in Israel: the role of teens and parents, *Journal of Consumer Marketing*, 20 (3), pp. 238-51.
52. Shoham, A., Dalakas, V. (2005), He said, she said...They said: parents and children's assessment of children's influence on family consumption decisions , *Journal of Consumer Marketing*, 22 (3), pp. 152-160.
53. Siegel, D.L., Coffey, T.J. & Livingston, D. (2004). *The great tween buying machine*. New York: Paramount Market Publishing.
54. Strauss, A. (1952). The development and transformation of monetary meanings in the child, *American Sociological Review*, June, pp. 275-286.
55. Swinyard, R.W., Sim, C.P. (1987), Perception of children's influence on family decision processes, *Journal of Consumer Marketing*, 4 (1), pp. 25-37.
56. Szybillo, G.J. & A. Sosanie (1977). Family decision making: Husband, wife and children, *Advances in Consumer Research*, W.D. Perreault (ed.), 4, Ann Arbor, MI: Association for Consumer Research, pp. 46-49.
57. Tufte, B. (2003). Children, media and consumption, *Advertising and Marketing to Children*, October-December, pp. 69-76.
58. Verma, D.P.S. & S. Kapoor (2003). Dimensions of buying roles in family decision making. *Management Review*, December, pp. 7-14.
59. Wackman, D. & Wartelle, E. (1977). *How children learn to buy*, Sage, London, UK.
60. Ward, S. (1980). Consumer socialization, In H.H. Kassarijn & T.S. Robertson (ed.), *Perspective in Consumer Behaviour*. Glenville, IL: Scott, Foresman & Co., pp. 380-396.
61. Ward, S. & D.B. Wackman (1972). Children's purchase influence attempts and parental yielding, *Journal of Marketing Research*, 9 (November), pp. 316-319.
62. Wasson, C.R. (1978). *Dynamic competitive strategy and product life cycles*. Austin, TX:Austin Press.