FROM INVOLVEMENT TO SATISFACTION IN MEDIA CONSUMPTION

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ABSTRACT

The purpose of this paper is to investigate the influence of involvement as a determinant of consumer satisfaction. The conceptualization of involvement used in this research extends previous ones to include the whole relationship established between a person and an object in the usage situation. Eight main dimensions of this relationship (including components -antecedents and consequences- of involvement, and satisfaction level) have been identified:
- hedonic (mixing of importance and pleasure, which may be looked at as involvement in a restricted meaning). sign (social expressiveness of the product)
- cognitive (information seeking and expertise)
- sociability (social context of usage)
- stimulation (including affective aspects of consumption experience). choice process (complexity level of usage decision)
- frequency of usage
- satisfaction (generated by product usage)

These dimensions have been measured and validated for six products:
- TV
- Radio
- Videotex
- Videogames
- Home computer
- Video-recorder

The paper presents, for each product, the patterns of relationships between the level of satisfaction generated by product usage and the facets of involvement. A structural model is tested at the whole data set level. Results show the evidence of an "affective path" to satisfaction, linking hedonic involvement, stimulation associated with consumption experience, and satisfaction. Contradictory results are obtained on the influence of cognitive consequences of involvement (information search and mastery).

INTRODUCTION

Involvement and satisfaction have emerged in the last decade as two of the most important constructs in consumer behavior research. However research dealing with the links between those two concepts have been quite rare.

The purpose of this paper is to investigate the influence of involvement as a determinant of consumer satisfaction. The conceptualization of involvement extends the "involvement profiles" as developed by Laurent and Kapferer (1985), to study the whole relationship established between a person and an object in the usage situation. Eight dimensions (including satisfaction) of this usage relationship are identified and validated for six products pertaining to home electronic equipment. Then satisfaction is taken as the focal variable and patterns of relationships of satisfaction level with the other dimensions characterizing usage relationship are explored by bivariate analysis at the product level, and through structural

modeling at the whole data set level.

THEORETICAL FRAMEWORK

Constructs

Since its first introduction by Sherif and Cantril (1947), the involvement construct has risen as one the most important concepts in consumer behavior research. The evidence of this emergence may in particular be found in a number of research articles on this topic, and even its use as a conceptual guideline for a textbook on consumer behavior (Assael, 1984). However some debate remains on the extent of this concept and on the ways of its operationnalization. Among the main aspects of this debate are the following:

- its dimensionality: is involvement unidimensional (Zaichkowsky, 1985) or multifaceted (Laurent and Kapferer, 1985)
- its temporal horizon: enduring or situational involvement (Arora, 1983)
- its focal object: purchase, consumption, advertising, issues associated with the product,...

Beyond involvement, this research aims to study the whole relationship which is established between a person and an object in the usage situation. This approach stems from an interactionnist perspective on consumer behavior (cf Punj and Stewart, 1983; Solomon, 1983) and may be looked at as a part of a more general paradigm "POS" (Person - Object - Situation, cf Bloch and Richins, 1983) whose aim is, beyond solely contingent approaches, to offer a framework integrating the diversity of behaviors observed on consumer markets. On the preceding taxonomy of involvement conceptualisations, this approach is: multifaceted (taking into account components, antecedents and consequences of involvement); enduring; focusing on consumption experience.

Consumer satisfaction, evaluation and ultimate consequence of the consumption experience, has also emerged in the last decade (since the seminal conference edited by Hunt, 1977) as a major area of consumer research, as is evidenced by the creation of specialized publications (proceedings and journal devoted to this topic).

Hypotheses

However only a few research have explored the links between involvement and satisfaction: Beatty and Smith (1983) have studied the influence of involvement on the relationship between information search and satisfaction; Oliver and Bearden (1982) have studied the influence of the level of involvement (high - low) on satisfaction processes, in the context of the disconfirmation paradigm; Keon and Kamins (1985) have examined if commitment was discriminatory between competing theories explaining the formation of consumer evaluations.

In this paper, we will analyze the patterns of

relationships between the level of satisfaction generated by product usage and some facets of involvement. A basic hypothesis is that a strong link will be observed between involvement and satisfaction, but that this relationship will be differentiated according to various facets of involvement.

METHODOLOGY

Research Design

This research, which has been sponsored by FRANCE-TELECOM[1] deals with six products which are electronic devices giving access to informational, cultural or leisure programs. In that sense, all of them are "medias" between consumer and services; all these products are used at home, in the domestic context: two are "old" (TV and radio); four are "new" (or at least recent): videotex, videogames, home computer, video-recorder. The analysis deals with the product as programs support (and not as technological products) at the usage level (and not at the purchase level, i.e. equipment decision).

Sample. A presurvey (3,982 interviews) has lead to the identification of the "electronic household" (defined as a household equipped with at least one among the four "recent" products. These households were, at the time of the presurvey (october 1986), 21 % of the French population[2].

Only persons belonging to electronic households and using personally the products were selected for the sample of the main survey which includes 256 interviews leading to 503 observations (approximately 80 for each product). Each interviewee was questioned on two products; product combinations were arranged according to an orthogonal experimental design and, within each cell, the order of presentation of the two products was systematically varied.

Questionnaire. The questionnaire includes, for each product, 23 items formulated, as closely as possible for the six products under study, in a 5-points Likert format. These items have been generated from literature review (in particular several items were extracted from the Laurent-Kapferer research on involvement profiles) and qualitative studies. The items were intended to reflect the domain of person-object relationship during the consumption experience.

Also were included in the questionnaire a few questions specifically pertaining to each product and personal characteristics (usual demographics and the self concept scale developed by Malhotra, 1981).

Data Analysis

Data analysis followed the process advocated by Anderson and Gerbing (1987) for structural modeling; this process consists in a two-step approach separating measurement and structure analysis.

Measurement. Measurement analysis includes a phase of items structuration, conducted through exploratory factor analysis, leading to identification of dimensions (or facets) characterizing consumer-product relationship. This analysis was conducted for each product separately and at the whole data set level; only the dimensions which were

the same for all the six products were retained at this step; this criterion lead to eliminate items reflecting perceived risk which did not exhibit analogous loading patterns for the six products. This phase may be seem as the intersection of seven factor analysis.

Eight dimensions, reflecting different facets of consumption relationship, were identified at this step; these dimensions have been used to elaborate comparative product profiles which were of a large substantive interest (cf Evrard, 1988). Among these eight dimensions, only five are multi-item constructs and were used for further steps of measurement validation; the other three, including frequency of usage, were measured by a single item.

In the measurement validation phase, convergent and discriminant validity were established through a confirmatory factor analysis using LISREL VI and reliability was checked by computing of an internal consistency index (Cronbach alpha; cf table 1).

Table 1
Multiple Scales: Internal Consistency
(Cronbach Alpha)

	IMPL	INFEXP	STIMU	SATIS	SIGN
TOTAL	.786	.789	.752	.747	.589
TV	.737	.614	.732	.729	.706
RDO	.755	.759	.759	.529	.728
MTL	.648	.756	.717	.798	.537
CJV	.784	.847	.757	.559	.748
MO	.853	.883	.792	.669	.521
MSC	.768	.803	.787	.775	.331

Structure. Structural analysis of the phenomena under study presents specific difficulties as we are dealing with a continuous dynamic process which is measured only statically at a certain point of time. This instantaneous photography of a on-going process must lead to cautious interpretation.

The results concerning the relationships between the dimensions will be presented in two successive steps:

- bivariate relationships (correlation coefficients)
- structural modeling (LISREL VI)

The first step has been done at each product level; the second one is only at the whole data set level, due to sample size limitations.

RESULTS

Identification of Eight Dimensions

As previously indicated, eight dimensions characterizing the "consumer product relationship" (which may be qualified, in the context of the products which are studied here, as "usage relationship") have been consistently identified throughout the six products, and at the whole data set level.

The scores[3] of each product on each dimension are

presented in table 2. These dimensions may be described as follows:

a) **Hedonic (IMPL)**: this dimension results from the combination of product importance and pleasure associated with product usage[4]; it may be seen as involvement in a restricted meaning; products are strongly differenciated according to this dimension.

b) **Sign (SIGN)**: this scale correspond to value-expressiveness of the product, its capacity to be a support of meaning expressing users personnality; it weakly diffrenciates the six products[5].

c) **Cognitive (INFEXP)**: this dimension includes two facets that are conceptually distinct but that measurement was not able to significantly discriminate: information search and mastery; it may be interpreted as cognitive consequences of involvement.

d) **Affective (STIMU)**: this scale measures stimulation generated by usage, i.e. affective reactions associated with experiential aspects of consumption (cf Holbrook and Hirschmann, 1982).

e) **Satisfaction (SATIS)**: the level of satisfaction generated by product usage was measured by two items which were consistently correlated ; this dimension differenciates strongly the six products, opposing micro-computer and video-recorder whose users exhibit a high level of satisfaction, and TV which generates among the population studied here the lower level of satisfaction.

f) **Sociability (SOCB)**: this dimension, measured by a single item, characterized the preferred social usage context of the product (alone or with other persons).

g) **Choice process (CHX)**: this single item dimension measures the complexity level of usage decision; it opposes products for which usage decision is mainly spontaneous to products for which decision is reached through a more elaborate process.

h) **Frequency of usage (FREK)**: this aspect is measured by an usage habit question; it very strongly differenciates products which are used mainly daily (TV and Radio), weekly (VCR; home computer) or less frequently (videogames).

RELATIONSHIPS OF SATISFACTION LEVEL WITH INVOLVEMENT COMPONENTS

In this part of the paper, satisfaction level[6] will be treated as the focal variable. We will measure the patterns of its relationships with the other dimensions which may be considered as components -antecedents or consequences- of involvement, taken in its extended meaning. We will also look at the eventuality of disparities of these patterns across the six products.

The general hypothesis is that there will be a strong positive relationship between involvement and satisfaction. For a particular consumption experience, this relationship goes from involvement to satisfaction which is the ultimate evaluation of usage process. But the link may also be considered as reciprocal due to the fact that satisfaction level is an input variable for the next usage decision and may act as a reinforcer of involvement.

Table 2
Score of Six Products on Eight
Dimensions of "Usage Relationship"

	TV	RDO	VTX	VG	HC	VCR	TOTAL
IMPL(a)	3.71	4.03	2.87	3.51	3.99	3.82	3.70
SIGNE(b)	3.29	3.30	2.65	2.48	3.25	3.49	3.10
INFEXP(a)	3.33	3.03	2.80	2.70	3.52	2.95	3.10
STIMU(a)	2.93	3.10	2.68	3.36	3.77	3.04	3.12
SATIS(a)	2.43	3.18	2.76	3.48	3.80	3.87	3.22
SOCB1(b,c)	2.19	2.93	2.72	2.17	3.59	1.88	2.55
CHX1(b,d)	3.26	3.99	2.60	3.57	3.75	2.45	3.22
FREK(b)	3.63	3.62	1.60	1.16	2.01	2.64	2.47

(a) Multi-items scales
(b) Mono-items scale
(c) Collective/alone
(d) Elaborate/spontaneous

Correlation Patterns

The first step of analysis is to calculate bivariate correlations between satisfaction level and each of the other dimensions. The results (cf table 3) show that:

- hedonic component (or "restricted" involvement) is always the most important predictor of satisfaction level; as discriminant validity has previously be established, the strength of this link confirms the hypothesis of a reciprocal relationship between involvement and satisfaction
- frequency of usage, which may be looked at as behavioral involvement, is also strongly correlated with satisfaction level
- value expressiveness (social sign) is not significantly correlated with satisfaction level, but a consistent pattern of a weak negative correlation is observed for each product
- almost the same kind of pattern, but with even weaker correlations, may be observed for social context of usage (SOCB); there is a slightly higher level of satisfaction when usage takes place in a collective context
- the influence of choice process is contrasted across the six products: for home-computer and radio (whose usage context is predominantly alone), a spontaneous choice generates a higher level of satisfaction; on the contrary, for TV a deeper choice process is a source of higher evaluation[7]
- for the cognitive component (which may be conceptualized as a consequence of involvement), correlation coefficients are consistently positive, but differ from one product to another (not significant for TV and RDO; high only for home computer);
- the influence of stimulation associated with consumption experience (which may be interpreted as an affective component of usage relationship) is consistently and significantly positive on satisfaction level (with the exception of radio listening).

Table 3
Correlation Coefficients of Satisfaction
Level with Other Dimensions of
"Usage Relationship"

	TV	RDO	VTX	VG	HC	VCR	TOTAL
IMPL	.359[c]	.434[c]	.406[c]	.404[c]	.583[c]	.473[c]	.410
SIGNE	-.109	-.023	-.003	-.108	-.081	.059	-.055
INFEXP	.111	.124	.286[b]	.249[a]	.464[c]	.250[b]	.192
STIMU	.203[c]	.075	.341[c]	.383[c]	.440[c]	.263[b]	.310
SOCB	.062	-.103	-.101	-.069	-.015	-.021	-.035
CHX	-.187[a]	-.049	.191[a]	.136	.341[c]	-.096	.030
FREK	.198[a]	.329[c]	.263	.314[b]	.526[c]	.317[c]	.152

[a] $p < .05$
[b] $p < .01$
[c] $p < .001$
n.s. : not significant

The results from bivariate analysis were largely confirmed by multiple regression analysis which have been performed (with a stepwise procedure) for each product and the total sample.

Structural Model

Although conceptually distinct and discriminantly measured, components of involvement and other facets measuring the usage relationship are intercorrelated. The last step of analysis consisted in the test of a structural network based on a measurement and structure model[8] (this step was, as the measurement one, performed by using LISREL VI). This was done only for the total sample, due to sample size considerations.

The causal network presented on figure 1[9] was tested and lead to statistically satisfactory results[10]. It shows that:

- the influence of hedonic involvement on satisfaction is mediated by its cognitive consequences and mostly by its impact on stimulation associated to consumption experience: an "affective path" to satisfaction, linking, in an iterative process, hedonic involvement to consumption stimulation to satisfaction may be identified
- value-expressiveness, although not influencing directly satisfaction in a significant way, influences cognitive involvement and consumption stimulation;
- an important result is the negative sign of the link between cognitive involvement and satisfaction which contradicts precedent observations; the positive single correlation between these two constructs appears to be due to the influence of hedonic involvement on cognitive involvement; when this influence is removed, the direct influence of cognitive involvement on satisfaction level appears to be negative; this observation sustains an hypothesis of information search as an endless process heightening expectations and leading to frustrating results (this hypothesis is opposite to the preceeding one of

information as regulating the evaluation system).

Figure 1
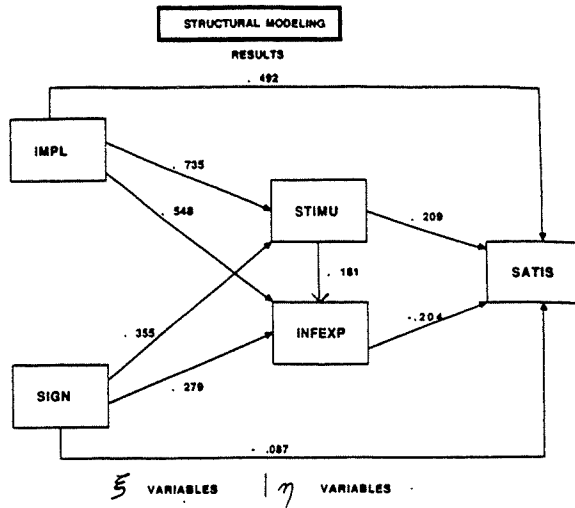
CONCLUSION

The main results obtained through this research are the following:

- identification of 8 dimensions (including components of involvement and level of satisfaction) characterizing the whole relationship established between a person and an object in usage situation
- confirmation of a general hypothesis of a strong positive relationship between involvement and satisfaction; more specifically, stimulation associated with experiential aspects of consumption appears to be a mediator contributing to an "affective path" linking hedonic involvement, experiential stimulation and satisfaction level;
- contradictory results concerning the link between cognitive consequences of involvement and satisfaction sustain alternate hypotheses on the influence of information on satisfaction.

Besides the particular nature of products which have been studied, the main limits of this research are the following:

- the link between involvement and satisfaction is one way for a specific usage occasion, but is part of a dynamic process implying reciprocal causation if a large period of time, including several consumptions, is considered;
- only satisfaction level has been measured, the inclusion of variables characterizing the process of satisfaction formation would help to clarify the ambiguous results concerning the role of cognitive component.

[1]The french state-owned company of telecommunications, whose activities include telephone and more recent services, such as videotex which has, in France, a rather large diffusion.

[2]Detailed results on equipment rates and configurations, as well as on demographic characteristics of these households have been presented in previous publications (cf Evrard, 1987)

[3]Those scores are computed, according to the number of items composing the scale, to vary in the 1-5 range.

[4]The link between inportance and pleasure has already been observed for other cultural products.

[5]It may be mentioned that scores on this dimension are significantly highet when usage is concerned than when the questions bear on the fact of being equipped with the product: usage not possession, is socially expressive.

[6]It has to be stressed that the satisfaction process was not studied in this research; only the result of the evaluation process was measured.

[7]This observation may be linked with the fact that preliminary information on programs (for instance by reading a TV magazine) gemerates a highter level of satisfaction; that may be interpreted, in the context of the disconfirmation paradigm: information on programs reduces differences between expectaions and preformances leading to a lesser disconfirmation.

[8]This analysis was restricted to multi-items components.

[9]A model including a link between the two exogeneous variables (IMPL and SIGNE) was also tested but the results did not show a significant improvement and was therefore eliminated for the sake of parsimony.

[10]ULS estimates; the criteria for the assessment of fit are as follows: coefficient of determination .911 (X variables), .999 (Y), .782 (structural equation); goodness of fit index: .983; root mean square residuals: .093.

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