Test of a Consumer-Brand Relationship Model
Including Trust and Three Consequences

Patricia Gurviez
Senior Lecturer E.N.S.I.A., Associated Researcher at I.R.G. (University of Paris XII)
Phone: (33) 1.69.93.51.81.
Fax: (33) 1.69.93.51.36.

Michaël Korchia
Assistant Professor Bordeaux School of Management, Associate Researcher at C.E.R.O.G.
(IAE Aix-en-Provence)
Phone: (33) 5.56.84.42.15.

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ABSTRACT

This paper will test a consumer-brand relationship model based on the relationship between trust, considered as a three-dimensional construct, and several consequences: commitment, brand extension acceptability, and the acceptability of temporary deficiency. The test was conducted on a population of 389 individuals. It validates the measurement scale of trust and the hypotheses linking the constructs.

Key words: brand relationship, trust, commitment, brand extension, measurement scale
Sociologists and anthropologists have long held trust as an essential ingredient in any kind of exchange (Mauss, 1924; Granovetter, 1985; Zucker, 1986). Blau (1964) has underscored that creating trust is centrally important to social or economic exchange. For several decades, trust has emerged in marketing as a requisite concept for understanding the structuring processes underpinning B-to-B exchange. The first researches focused more on B-to-B marketing. Relationship marketing later spread to the consumer market where trust in the brand, products or services were the critical issues.

This article belongs to the relationship marketing paradigm, with a focus on the research attempting to clarify the different concepts of the ‘logic chain of relationship marketing’. This chain lays down the existence of positive relationships between perceived quality, perceived value, satisfaction, trust and commitment (Aurier, Benavent and N’Goala, 2001). Its main goal is, therefore, to contribute to a specification and a measurement of consumer trust.

We will first show how this concept can be defined as a multidimensional construct. It is then our contention to deploy a construct on a scale that will measure consumer trust in one brand. Last, we will empirically test the scale on a relational model involving other constructs. The final discussion will address the theoretical and managerial implications of this model, with a special focus on two major issues for brand management: a crisis due to a failure of some brand-name products, and brand extension.

1-Theoretical Research Framework

1-1- Trust in B-to-B Exchange

Early research drew on Bonoma and Johnston’s seminal work (1978) and on Dwyer, Schurr and Oh’s model of relationship development processes (1987). This model specifies trust as a necessary variable in the phase of exploration, which allows a relationship to grow from simple...
awareness to commitment. Morgan and Hunt (1994) linked trust and commitment, calling them ‘key variables’ in the exchange network between a company and its various partners because the variables encourage corporate leaders to invest in a long-term relationship and not to give in to appealing, short-term alternatives. Trust is conceptualised in these works as a belief, in keeping with the tenets of social psychology research, or as willingness or behavioural intention (Moorman, Zaltman and Deshpandé, 1992). Actually, researchers have not reached a consensus on this issue. The theoretical stance on trust specifically is ambiguous. Trust draws partly on the processing of past information. However, trust is chiefly a construct focused on the future, providing a guarantee that partner is motivated not to alter the terms of the exchange. Without trust, there can be no stable or durable relationship.

Based on the literature, the following points may be identified:

- The strategic importance of the trust and commitment variables for maintaining a long-term relationship between industrial or business partners;
- The explanatory power of the trust concept with a focus on its impact on the commitment to the relationship, supplementing standard economic concepts such as transaction costs (Morgan and Hunt, 1994);
- The difficulty in conceptualising trust, which rests on both cognitive and affective bases.

1-2- The Research on Consumer Trust

Relationship marketing was later broadened to include the relationships that customers have with service companies (Berry, 1995). Commitment and trust were then used in the attempt to explain the mechanisms underlying stable preferences (Beatty et al., 1988). Specifically, several research works have further examined the roles of trust, commitment, and satisfaction in the relationship that customers have built with service companies (Garbarino and Johnson, 1999; Sirieix and Dubois, 1999). More recently, Chaudhari and Holbrook (2001), and Kennedy
et al. (2000) have found a positive relationship between trust and commitment for consumer products. Trust would be the cardinal forerunner of consumer commitment defined as the implicit or explicit intention to maintain a durable relationship with the brand.

Some confusion in the definition of the concept and its implementation appears in the research on brand trust. Fournier (1994) developed a multifaceted construct for measuring the quality of the relationship with the brand: two affective, two cognitive and two conative facets. Trust defined as a strong expectancy that the brand will provide what is expected rather than what is feared is considered as a cognitive dimension in this work. Hess (1995) is apparently one of the first to propose a special brand trust scale, defined as a multi-dimensional construct containing an ‘honesty’ dimension, an ‘altruism’ dimension, and a ‘reliability’ dimension. The idea of belief (Sirieix and Dubois, 1999; Frisou, 2000), willingness (Chaudhari and Holbrook, 2001) and presumption (Gurviez, 1999, Aurier, Benavent and N’Goala, 2001) can be found in other research. Literature goes beyond the very nature of trust, underscoring that the breakdown of the concept remains unsolved. Actually, three ideas of trust - one-dimensional, two-dimensional, and three-dimensional - can be found in marketing research.

- Morgan and Hunt (1994) use Larzelere and Huston’s one-dimensional scale (1980), which considers that the dimensions of honesty and benevolence, albeit conceptually distinct, «are operationally inseparable». Fournier (1994) conceptualises trust as one-dimensional.
- A two-dimensional idea of trust is more commonly found. In research on B-to-B trust, the first dimension involves the objective credibility of the partner, including the attribution of capability and honesty and involving the ability and willingness to keep promises. The second dimension comprises the attribution of benevolence, which corresponds to the partner’s good intentions, and his or her perceived willingness to pay attention to the other’s needs (Ganesan, 1994; Doney and Cannon, 1997; Ganesan and Hess, 1997). Two-dimensionality applied to brands’ relational approach is addressed by Fletcher and Peters (1997), and Sirieix and Dubois (1999), among others: a dimension that can be objectified involves the capability and honesty
attributed to the brand; the other dimension concerns the perception of the motivation and intentions geared to consumer interest.

- Some authors distinguish three dimensions, i.e., the presumption of capability (know-how), the presumption of honesty, viz., making a promise and keeping it, and the brand’s ability to take into account consumer interest, which involves long-term motivations (Hess, 1995; Gurviez, 1999; Frisou, 2000; Gurviez and Korchia, 2002). According to these works, components may be detailed by conceiving trust as a three-dimensional construct in compliance with Rempel, Holmes, and Zanna’s (1985) recommendation on the field of close relationships. Taking into account consumer interests concurs with the idea of reciprocity, a fundamental factor in the paradigm of exchange, defined as the moral obligation to give something in return for the (consumer) good one has received (Smith-Ring and Van de Ven, 1992). Differentiating between the presumption of capability and the presumption of honesty also makes it possible to distinguish two sources of trust, one stemming from technical skills and the other stemming from ethical proficiency (Landowski, 1989).

Therefore, this research paper adopts Gurviez and Korchia’s definition of the trust concept in the consumer-brand relationship. From the consumer standpoint, brand trust is a psychological variable mirroring a set of accumulated presumptions involving the credibility, integrity and benevolence that a consumer attributes to the brand (Gurviez and Korchia, 2002).

- The credibility attributed to the brand is the assessment of the brand’s ability to meet the terms of the exchange in terms of expected performance, i.e., meet consumer’s ‘technical’ expectations. Credibility is based on the consumer’s attribution to the brand of a degree of expertise derived from consumer’s functional expectations for the satisfaction of his or her needs.
• Integrity is the attribution of loyal motivations to the brand with respect to its promises involving the terms of the exchange; in other words, the honesty of its ‘claims’ in the broadest meaning of the word.

• Benevolence is the attribution to a brand of a durable consumer-oriented policy taking into account consumer interests, even before short-term brand interest. The presumption of a benevolent brand policy toward consumers helps consumer envisage a less insecure future since what is being offered is the durability of the terms of a fair exchange.

We support Gurviez and Korchia’s hypothesis that the relationships linking the three dimensions to trust are causal or formative (Bollen and Lennox, 1991; Chin, 1998) relationships: the concept of trust is considered as an index based on causal indicators (Edwards, 2001).

Trust in technical performance may vary to a certain extent regardless of the trust in the brand’s good intentions or in the honesty of its promotional communication. For instance, the disappointing purchase of a brand’s new product may weaken the brand’s credibility in the consumer’s eyes but will not impair its integrity, which causes the overall level of consumer trust to drop.

This special configuration is not much used in marketing, undoubtedly because it often raises the problem of statistical evaluations with structural analysis methods of covariance that were made popular by LISREL software (Cohen et al., 1990). However, the configuration is particularly well adapted to the concept of trust, which is hard to clearly identify with usual methodologies, as was pointed out earlier. The configuration is appropriate for general constructs based on the measurement of the special aspects that make up the constructs (Edwards and Bagozzi, 2000). It would advisable to test this definition of brand trust empirically. In this case, Law et al. (1998) suggest placing the construct in a model involving other constructs.
1-3- Relationship Model Including Consumer Brand Trust

In compliance with this recommendation, we propose to place the previously defined trust construct in a model in line with the ‘logic chain of relationship marketing’. The trust-commitment relationship is pivotal to this chain. Commitment has been defined as the «enduring desire to maintain a valued relationship» (Moorman, Zaltman and Deshpandé, 1992). Zeithaml, Berry and Parasuraman (1996) have already drawn researchers’ attention to the relevance of measuring consumers’ future behavioural intentions as well.

Literature also points to other possible consequences, which have not been as extensively dealt with in literature on trust but which have been pinpointed as consequences of trust:

- On the one hand, brand extension acceptability as a direct consequence (Doyle 1990, Cegarra and Merunka 1993). Consumers will be more willing to accept a new product from a brand they trust. For instance, consumer will expect a good quality extension if it is made by a brand perceived as technically competent.

- On the other hand, the acceptability of a temporary quality deficiency as an indirect consequence of trust via commitment (Biel, 1993). If consumers trust a brand, they will commit to a relationship with the brand, characterised by the willingness to sustain a long-term relationship despite any incidents providing they are temporary. A hypothesis can be drawn that trust via commitment can have an indirect impact on the acceptability of a temporary quality deficiency.

Our model assumes there are two direct consequences of trust (commitment and brand extension acceptability) and one indirect consequence, the acceptability of a temporary deficiency (see figure 1). The nomothetic network corresponds to the following hypothesis:

H1. Brand trust has a positive impact on commitment
H2. Brand trust has a positive impact on brand extension acceptability
H3. Commitment has a positive impact on the acceptability of temporary deficiencies
2-Test of the consumer-brand relationship model

2-1- Defining and Selecting a Sample of Items

Extensive literature on the relationships between companies (with few applications for brands) is available for implementing trust measurement. The relevant scales are often North American and adapted from psychology research on inter-personal relationships. It is not always easy to distinguish the antecedents from the dimensions of trust. We finally opted for the trust scale suggested by Gurviez and Korchia (2002), which measures the three dimensions of trust via 8 items¹ (3 for credibility, 3 for integrity, and 2 for benevolence).

The implementation of the commitment variable is based on the items proposed by Le Roux, Chandon, and Strazzieri (1997).

The measurement of the acceptability of a temporary deficiency is based on the three items used by Gurviez (1998).

¹ For an overview of the literature on brand trust measurement scales (Fournier, 1994; Hess, 1995; Fletcher and Peters, 1997; Sirieix and Dubois, 1999; Frisou, 2000; Aurier, Benavent and N’Goala, 2001; Chaudhari and Holbrook, 2001), see Gurviez and Korchia (2002).
The measurement of brand extension acceptability applied to another product category is adapted from the scale used by Roux and Bousch (1995). It includes two questions, one on perceived quality and the other on purchasing intention.

2-2- Data Collection

Data from French university students in the Paris Region and the Provinces was collected in November and December 2002:

- The Paris region: 2 universities and one school of engineering
- The provinces: 1 university and one school of business

A total of 389 individuals answered, including 157 men and 232 women.

The interviewees had to provide their age, gender, and amount of monthly purchases of the brand; this conforms with the ‘product’ dimension of brand familiarity (Korchia, 2001).

The chosen brand is a brand whose flagship product is a nut-based spread (Nutella), which was chosen because of its high popularity with the interviewees. We chose a chocolate bar to measure brand extension acceptability, based on the hypothesis of a strong fit between the usual brand product and the new product category.

2-3- Analysis and results

Statistica 6 and Amos 4 were used for the study analyses assessing the formative structure of trust and the relationships proposed in the conceptual framework. Exploratory Factorial Analysis (EFA) and Confirmatory Factorial Analysis (CFA) were used to assess the measurement model (Bollen, 1989; Gerbing and Hamilton, 1996). The relationships hypothesised in the conceptual framework were then tested on the structural equation model (Jöreskog, 1993).

Measurement model

EFA was first conducted to test the validity of the constructs (Table 1). We then conducted CFA to explicitly test the one-dimensionality of the constructs (Gerbing and Anderson, 1988).
The results were satisfactory: the fit indicators substantiate the measurement properties of the model (Table 2).

Correlation between constructs ranges from low (credibility-benevolence: .10) to high (credibility-commitment: .76) and shows discriminant validity. All the indicators are significant and the square multiple correlation (equivalent to $R^2$) is over .5, indicating that individual indicators suitably reflect their hypothesised constructs. Also, all factor loadings exceed .7\textsuperscript{2}. The structural model can be evaluated because the parameter estimates provide evidence supportive of the internal and external consistency of the measures (Gerbing and Anderson, 1988).

\textsuperscript{2} For further details on the findings of these analyses, please contact the authors.
Table 1: Question headings, alpha, and findings of factorial analysis

<table>
<thead>
<tr>
<th>CREDIBILITY</th>
<th>Alpha = .79</th>
</tr>
</thead>
<tbody>
<tr>
<td>This brand’s products make me feel safe</td>
<td>.77</td>
</tr>
<tr>
<td>I trust the quality of this brand’s products</td>
<td>.79</td>
</tr>
<tr>
<td>Buying this brand’s products is a guarantee</td>
<td>.33 .74</td>
</tr>
<tr>
<td>INTEGRITY</td>
<td>Alpha = .82</td>
</tr>
<tr>
<td>This brand is sincere with consumers</td>
<td>.89</td>
</tr>
<tr>
<td>This brand is honest with its customers</td>
<td>.83</td>
</tr>
<tr>
<td>This brand expresses an interest in its customers</td>
<td>.76</td>
</tr>
<tr>
<td>BENEVOLENCE</td>
<td>Alpha = .75</td>
</tr>
<tr>
<td>I think this brand renews its products to take into account advances in research</td>
<td>.88</td>
</tr>
<tr>
<td>I think that this brand is always looking to improve its response to consumer needs</td>
<td>.88</td>
</tr>
<tr>
<td>COMMITMENT</td>
<td>Alpha = .82</td>
</tr>
<tr>
<td>If necessary, I would make a few small sacrifices so I could continue using this brand</td>
<td>.79</td>
</tr>
<tr>
<td>I tend to praise and defend this brand</td>
<td>.83</td>
</tr>
<tr>
<td>I think I will appreciate this brand for a long time</td>
<td>.63 .39</td>
</tr>
<tr>
<td>BRAND EXTENSION ACCEPTABILITY</td>
<td>Alpha = .82</td>
</tr>
<tr>
<td>If this brand was to market chocolate bars, do you think they will be good quality?</td>
<td>.90</td>
</tr>
<tr>
<td>Suppose you wanted to buy a chocolate bar, would you consider buying this brand’s chocolate bar?</td>
<td>.87</td>
</tr>
<tr>
<td>TEMPORARY DEFICIENCY ACCEPTABILITY</td>
<td>Alpha = .91</td>
</tr>
<tr>
<td>If I had a problem with one of this brand’s products, I would give the brand another chance</td>
<td>.90</td>
</tr>
<tr>
<td>If I was disappointed by one of this brand’s products, I would think it was an accident and I would buy it again</td>
<td>.89</td>
</tr>
<tr>
<td>If the quality of one of its products did not suit me, I would give the brand another chance</td>
<td>.87</td>
</tr>
</tbody>
</table>

Table 2: CFA findings on the constructs

<table>
<thead>
<tr>
<th>Chi-square</th>
<th>Degrees of freedom; p</th>
<th>GFI</th>
<th>RMSEA</th>
<th>RMSEA: 90% confidence interval</th>
<th>SRMR</th>
<th>TLI</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>225.628</td>
<td>89; 0</td>
<td>.931</td>
<td>.063</td>
<td>.053; .073</td>
<td>.048</td>
<td>.940</td>
<td>.955</td>
</tr>
</tbody>
</table>

^ All items are measured on 5 point Likert scales. Only loadings over .30 after Varimax rotation are indicated.
Structural Model

The AMOS 4.0 fit indicators show that the model fits the data quite well (Table 3). All the structural relationships (i.e., arrows and double-headed arrows linking the circles in Figure 2) are significant. Thus, as hypotheses correspond to the relationships between constructs in the structural model (Figure 2), they are all validated. Tables 3 and Figure 2 provide main test findings.

Table 3. Test of the formative structure of trust and its impact on three constructs

<table>
<thead>
<tr>
<th>Chi-square</th>
<th>Degrees of freedom; p</th>
<th>GFI</th>
<th>RMSEA</th>
<th>RMSEA: 90% confidence interval</th>
<th>SRMR</th>
<th>TLI</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>240.948</td>
<td>95; 0</td>
<td>.926</td>
<td>.063</td>
<td>.053; .073</td>
<td>.048</td>
<td>.940</td>
<td>.952</td>
</tr>
</tbody>
</table>

Figure 2: Structural relationships in the structural equation model

The path between credibility and trust is five times greater than the paths between benevolence or integrity and trust. Because of the formative structure of trust, credibility has a much more important role in the building of trust than the other two dimensions.
Consumers with a high level of trust will be more likely to accept brand extensions. Trust is a major determinant of commitment, which determines temporary deficiency acceptability.

**Conclusion: Limitations and Contributions of Our Three-dimensional Scale for Brand Trust and the Brand-Consumer Relationship Model**

Our research confirms the advantage of concepts such as trust or commitment for a clearer insight into consumer behaviour although the concepts are not part of the research tradition of cognitive psychology. A clearer apprehension of a certain acceptability of the trust concept, for which there is no measurement tool that is unanimously recognised by academia, is possible with the above scale.

Two types of limitations emerge from the research:

- From a theoretical standpoint, the limitations are contingent upon the limitation of the brand relationship as an explanation of consumer behaviour. Consumers are sometimes reluctant to establish a relationship with a brand. Personality, perceived risk and probably other variables have an impact on the emergence and maintenance of a consumer-brand relationship. Also, the brand is only one of the quality indicators available to consumers who may look at other indicators such as the price or the salesperson (Sirieix, 2001).

- From a methodological standpoint, although the study is based on former research including several brands pertaining to different product categories (cosmetics and soft drinks), the findings should not be generalised without some measure of precaution.

Last, an essential limitation of our research is that our model does not take into account trust antecedents, and that it is restricted to certain consequences (commitment, acceptability of brand extension and of temporary deficiencies). However, the consequences of our research are relevant for brand management, hence vindicating the advantage of our model. In our introduction, we underscored the difficulty in clarifying all the concepts in the ‘relational
chain’. The purpose of our research humbly purports merely to highlight the brand trust relationship and some of its consequences.

*The Contribution*

We believe that the main contribution of our research is the confirmation of trust as a formative construct made of three distinct dimensions. This makes it possible to measure brand trust in detail and integrate this concept into theories attempting to apprehend the complexity of the consumer-brand relationship. Specifically, it would be appropriate to distinguish the integrity dimension from the benevolence dimension that have often been empirically confused in earlier research. These findings contribute to the development of the relational approach and provide a better understanding of consumer behaviour. This issue is a major challenge for relationship marketing research that has often been criticised for the lack of empirical research. The development of our scale makes it possible to understand and measure the trust relationship linking the consumer to the brand and provides managers with paths for thought and action. Our work takes into account certain managerial concerns that endow the long-term relationship with customers (McKenna, 1991; Reichheld, 1997) and more specifically the consumer-brand relationship (Degon, 2000) with a strategic dimension.

The import of the ‘credibility’ dimension seems to indicate that consumers build their trust firstly on the quality of the brand’s products. However, the other dimensions – integrity and benevolence – cannot be considered as negligible. Now they imply that the relational dimension of a brand must be taken into account to build durable consumer trust.

The findings show that trust has a positive impact on two issues that concern most brand managers in a situation where consumers are looking for reassurance. Trust via commitment emerges as a good predictor of temporary deficiency acceptability. This involves a major behavioural intention since no brand today may feel completely safe from a crisis triggered by
an actual or perceived, temporary quality deficiency. Consumer trust in the brand might then minimise the negative impact of such a crisis and protect the brand.

Also, we have only tested the trust-extension acceptability relationship without measuring many other variables that may influence said acceptability. Yet the import of trust in explaining acceptability is high: trust explains 32% of extension acceptability. Here too, it seems that a brand consumers trust may reasonably hope to succeed in new fields.

The findings seem to point to the fact that research on trust, and more broadly on the relational model applied to brands, may have extensive theoretical and managerial repercussions. The possibility of considering trust as a formative construct can highlight the relative, albeit very real, importance of its three dimensions. Credibility, in other words the evaluation of the brand’s ‘technical’ know-how, is a significant dimension of consumer products, such as the brand studied in our research paper. However, if brand trust is to be effective, it must rely on more ‘relational’ dimensions that are harder to measure… and manage. Here too, many implications can be put forward for academia and brand management. Specifically, it would be advisable to measure the impact of trust on extension acceptability by controlling the fit level. It would also be productive to measure the trust-commitment-temporary deficiency acceptability relationship by changing the degree of deficiency.

New avenues of research abound for managerial applications as well as for theoretical developments. It would then be possible to implement a model including a greater number of antecedents and outcomes of trust.
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