Excitement or sophistication? A preliminary exploration of online brand personality

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Abstract

Purpose   This study attempts to identify the brand personality dimensions that American firms intend to create in the mind of online consumers by using "forms of online communications" partially based on Ghose and Dou's earlier study.

Design/methodology/approach   The operational definitions of brand personality stimuli are adopted from prior research on advertising creative strategies. A content analysis was conducted on 270 web sites created by 64 American brands in the USA, UK, France, Germany and Spain.

Findings   A principal component analysis identifies five underlying dimensions of brand personality stimuli: excitement, sophistication, affection, popularity, and competence. The principal forms of online communications consist of stakeholder relations, direct/indirect sales, choice functions, connectedness, orientation, and product positioning. Multiple regression analyses confirm that there are modest but consistent associations between the intended brand personality dimensions and the forms of online communications.

Research limitations/implications   The dimensions of brand personality stimuli are intrinsically traceable from the perspective of the creative advertising appeals that multinational corporations (MNCs) attempt to employ on their web sites.

Practical implications   This study provides a practical observation relating to whether MNCs are attempting to create a uniform set of brand personality dimensions across global markets.

Originality/value   The present study contributes to the literature by its attempt to classify brand personality stimuli in terms of the cognition versus affection framework.

Keywords Creative thinking, Internet, Marketing communications, Brand identity, Multinational companies

Paper type Research paper

Introduction

Brand personality is one of the core dimensions of brand equity (Aaker, 1996). It is concerned with how people attach a "pseudo" human personality to the brand itself, rather than to what the brand does (Keller, 1998). Brand personality has received considerable attention from marketing scholars, because the principal advantage of creating a brand personality is that it increases consumer preference and usage (Sirgy, 1982), and levels of trust and loyalty (Aaker, 1997). Moreover, researchers at Whirlpool Corporation pointed out that "brand personalities are often the basis for

a long-term relationship with the brand" and suggest "what type of person the brand would be if it were human and what it would do and like" (Hawkins *et al.*, 2001, p. 376). In this vein, prior research adopted the trait approach, in which brand personality was conceptualized as a set of multi-dimensional traits. In the most comprehensive study to date, Aaker (1997) identified the "Big Five" dimensions of brand personality: sincerity, excitement, competence, sophistication, and ruggedness. Her work has established an important cornerstone in the development of an object measurement scale, the variables of which influence consumer purchase decisions both independently and interdependently.

Of the variables in the marketing mix, marketing communication has often been regarded as the most influential in the creation of brand personality (Anderson and Rubin, 1986). Given the recent proliferation of corporate or brand web sites, a question arises: what dimensions of brand personality do multinational corporations (MNCs) attempt to create in the minds of online consumers? What kind of online communications do they use? Despite the abundant literature on brand personality in general, little attention has been paid to how companies attempt to formulate brand personality on the internet.

The aim of this study is to fill this research gap, by conducting a cross-cultural content analysis of American MNCs' web sites. Brand personality is conceptualized as a combination of two sets of stimuli (functional and expressive), on the assumption that American MNCs are utilizing a series of online communications in the attempt to make consumers perceive a single "intended" brand personality across markets. The countries studied were the USA (home country), UK, France, Germany, and Spain (host countries), which were chosen because they exhibit political, social, and economic similarity, but cultural and linguistic diversity. In total, 270 web sites of 64 American MNCs were examined across markets.

In the following sections, the relevant literature is first reviewed. Then, the theoretical framework of the study is established, and the research questions formulated. The research methodology is then explained in detail, and is followed by the description of the results, and by a discussion of the research findings. In the conclusion, the implications of the findings are summarized. Finally, the limitations of this study are discussed and suggestions for further research are made.

Review of literature

Formally defined, "brand is a name, term, sign, symbol, or any other feature that identifies one seller's good or service as distinct from those of other sellers" (O'Guinn *et al.*, 2003, p. 21). Brand can be described in terms of three different classes of characteristics: physical attributes, functional characteristics, and brand personality (Plummer, 2000). Of direct interest to this study, Aaker (1997, p. 347) defines brand personality as "the set of human characteristics associated with a brand". By using the brand, consumers are likely to create expectations about the features, performance and benefits of the brand. Beyond such expectations, consumers often invest brands' identities with human personality attributes, and this in turn leads to the symbolic use of the brand (Hawkins *et al.*, 2001). This process has been termed "animism" and in it consumers tend to relate the brand to a celebrity, or even to their own or ideal self (Fournier, 1998; Rook, 1985). For example, research found that consumers assigned certain personalities to appliances made by Whirlpool (gentle, sensitive, quiet, etc.), and others to those made by KitchenAid (sophisticated, glamorous, wealthy, etc.) (Triplett, 1994).

Traditionally, research in brand personality has generally focused on the relationship between brand and human personality, hypothesizing that the stronger the congruity between them, the greater the preference for the brand (Belk, 1988; Hong and Zinkhan, 1995; Malhotra, 1981). In the attempt to develop a theoretical framework of brand personality, Aaker (1997) established a 42-item scale by creating a list of 309 personality attributes based on human personality traits and empirical research. She tested the scale with 631 consumers on 37 commercial brands in the USA. The exploratory and confirmatory factor analyses found five personality dimensions, around which brand personality attributes are structured in the minds of consumers: sincerity, excitement, competence, sophistication, and ruggedness. Aaker's findings suggest that although the relationship between brand and human personality is not exactly symmetric, many consumers are likely to associate themselves with a product by closely matching the brand personality with their own.

Since, Aaker's (1997) pioneering scale development, brand personality has received increasing attention from researchers, because it is an important means of differentiating and developing long-term brand equity (Supphellen and Grønhaug, 2003). Table I summarizes prior research on brand personality. Aaker *et al.* (2001) tested Aaker's 42-item personality scale in Japan and Spain, identifying a set of brand personality dimensions that are cross-culturally similar (sincerity, excitement, competence and sophistication), and others that are distinct (peacefulness in Japan, ruggedness in the USA, and passion in Spain). A French translation of Aaker's scale was developed by Ferrandi *et al.* (1999), who reduced the original 42-items to 33-items in a five-factor model (sincerity, excitement, sophistication, robustness and liking). Ferrandi *et al.* (2002) also led another study that examined Saucier's (1994) 40 human personality traits in a French context, and identified 15 brand personality traits pertinent to five underlying dimensions (introversion, agreeableness, conscientiousness, neuroticism and openness). Supphellen and Grønhaug (2003) carried out a similar cross-cultural validation in Russia, and found important differences in terms of the content of five dimensions of brand personality (successful and contemporary, excitement, ruggedness, sincerity, and sophistication). They concluded that Aaker's scale is probably less robust in a Russian context.

Most research in Table I focuses on brand personality in an off line environment, but one study explored how exposure to the brand web site affects the perceived brand personality. Müller and Chandon (2003) conducted an experiment by randomly assigning participants in exposure and non-exposure groups to ten commercial web sites. The findings suggest that two of the brand personality dimensions, youthfulness/modernity and sincerity/trustworthiness, increased in the exposure group. It was also demonstrated that this effect is strengthened when visitors to the brand web site exhibit a more positive attitude towards the site.

Conceptual framework

Müller and Chandon's (2003) study provides an insight into brand personality creation in an online environment, but it left an important question unanswered. It is true that brand personality is generated by consumers' perception, but what is the role of the sender's intention? The relevant literature suggests that advertisers attempt to provide "stimuli" through various forms of brand communications, with the aim of making consumers perceive the intended personality (Anderson and Rubin, 1986; Batra *et al.*, 1996).

Authors (year)	Country	Objective	Scale	Sample
Aaker (1997)	USA	To propose a theoretical model of the brand personality	42 brand personality traits pertinent to five underlying dimensions: competence, sincerity, excitement, sophistication, and ruggedness	631 consumers
Siguaw et al. (1999)	USA	To test Aaker's brand personality traits on restaurant brands	Aaker's (1997) 42 brand personality traits	247 undergraduate students
Ferrandi et al. (1999)	France	To test Aaker's brand personality scale in a French context	Aaker (1997)	
Aaker et al. (2001)	USA, Spain and Japan	To test Aaker's brand personality traits in the USA, Spain and Japan	Aaker (1997)	
O'Cass and Lim (2001)	Singapore	To test the effects of brand personality on brand preferences and purchase intentions	Aaker (1997)	459 undergraduate students
Ferrandi et al. (2002)	France	To test the applicability of human personality traits to brands	Saucier's (1994) 40 human personality traits	537 undergraduate students
Müller and Chandon (2003)	France	To explore the effects of a web site on brand personality	Ferrandi et al. (1999)	1,254 male and 521 female consumers
Supphellen and Grønhaug (2003)	Russia	To test Aaker's brand personality scale in a Russian context	Aaker (1997)	107 undergraduate students and 93 consumers
Magin et al. (2003)	Germany	To examine the relationships between self-congruity (difference between brand and human personality factors), customer satisfaction, customer loyalty, etc. on internet service providers	15 personality traits chosen from Aaker's (1997) scale	241 internet users

Table I.
Prior research on brand personality

If this is the case, advertisers' communication strategies should be examined in the light of their intended stimuli, as a complement to studies of consumers' brand personality perceptions. On this basis, this section summarizes the conceptual framework of the principal thesis of this study, as to how MNCs attempt to create brand personality on the online environment through the use of functional or expressive stimuli, and online communications.

Functional versus expressive stimuli
Although a brand personality may be formed on the basis of any element of the marketing mix, advertising has been considered the principal mediator of brand personality creation (Brassington and Pettitt, 2000). This association is largely the result of advertisers' creative strategies:

> ... such as anthropomorphization (e.g. California Raisins), personification (e.g. Jolly Green Giant), and the creation of user imagery (e.g. Charlie girl) (Aaker, 1997, p. 347).

On this account, practitioners develop the brand personality statement as the agency's communication goals for the brand in "an important part of creative strategy" (Plummer, 2000, p. 80). In other words, creative developing advertising needs to know what the intended brand personality is (Aaker and Fournier, 1995). Advertising managers tend to rely on celebrity endorsers, product attributes, symbols, logos and slogans to personify the intended brand personality and develop the set of human characteristics associated with a brand (Aaker, 1997; Ferrandi *et al.*, 2002). In this creative process:

> ... social admiration, pride of ownership, anxiety about lack of use, or satisfaction in consumption become important humanizing dimensions of the interpretation of products (Leiss *et al.*, 1997, p. 246).

Given this argument, it is reasonable to assume that MNCs attempt to create brand personality by the use of clearly positioned brand communications, especially creative strategies. For example, Batra *et al.* (1996) contend that it is necessary to develop an appropriate marketing communication mix that creates, reinforces, or changes the target brand personality, by synergistically combining corporate reputation and image, the brand name, brand packaging and iconography, etc. In this regard, Mittal (1989) suggests that consumers respond differently to advertising for functional products and expressive products. Functional products emphasize inherent product features, about which consumers make logical and objective purchase decisions. In contrast, expressive products emphasize the psychological implications of the product, and consumers look for a favourable and self-congruent image.

Taken together, the current study, therefore, proposes that MNCs attempt to generate online brand personality by using two major stimuli in creative strategies: functional and expressive stimuli. Functional stimuli are those attributes that base the rationale of advertising arguments on factual information; this is often referred to as the need for cognition in personality classification (Cacciopo and Petty, 1982). In contrast, expressive stimuli are those attributes that have little to do with factual appeals, and are instead developed by feeling or by emotionally charged appeals (Geuens and De Pelsmacker, 1998; Moore and Harris, 1996). Essentially, this typology has been inspired by a large body of past literature on advertising creative strategies, such as informational versus transformational strategies, and informational versus emotional

appeals (Batra *et al.*, 1996; De Pelsmacker and Greuens, 1997; Frazer, 1983; Hwang *et al.*, 2003; Laskey *et al.*, 1989; O'Guinn *et al.*, 2003; Taylor, 1999).

Forms of online communications
In the application of functional and expressive stimuli to online environments, MNCs are thought to deploy a wide range of online communications, such as investor relations, direct and indirect online transactions, company and brand information, promotions, cultural events, and so on, with the aim of making consumers perceive the intended brand personality. The explicit motivations for MNCs to employ these online communications on their web sites are to attract an international audience across global markets, and to offer an effective transaction channel for consumers who may be inaccessible via other media (Quelch and Klein, 1996). Implicitly, many brand web sites combine a variety of content dealing with their product, services and messages, and focusing on both corporate image and brand issues. Such multi-purpose functionality is a distinctive benefit of web site communications, and is often not available in traditional corporate advertising (Hwang *et al.*, 2003).

These forms of online communications have been examined primarily in content-analytic studies of web sites (Dou *et al.*, 2002; Ghose and Dou, 1998; Hwang *et al.*, 2003; Philport and Arbittier, 1997). For example, Ghose and Dou (1998) suggest a range of web site functions and their marketing applications, such as "trustworthiness of the company and its offering", "domain name type", "product information", "language options", "personalization capability", and "contact information". Similarly, Hwang *et al.* (2003) developed a typology consisting of "sales functions", "relationship", "communication about the brand", "communication about the company", and "acute response". A comprehensive analysis of these functions would lead to a much more functional understanding of what brands are attempting to communicate in the internet medium (Philport and Arbittier, 1997).

Generally, global internet users prefer to browse web sites in their own country domain. It is, therefore, usually advantageous for MNCs to maintain localized web sites in line with local tastes and preferences. On the other hand, it is almost inconceivable that leading MNCs would easily ignore any opportunity to maintain centralized control of their web sites, because such control enables them to maintain consistency in branding strategy in multiple markets (Dou *et al.*, 2002; Roberts and Ko, 2001). In either case, semantic and technical difficulties may arise in translating brand information from one language to another (Hillier, 2003). It is, therefore, interesting to examine web sites in multiple-country domains, and to investigate whether MNCs employ online communications in ways that attempt to make consumers perceive a uniform and coherent brand personality across markets.

Research questions
From the preceding discussion, it is reasonable to expect that MNCs attempt to create brand personality in the minds of consumers by using a series of online communications. To explore how advertisers produce brand personality, the following three research questions are posed.

RQ1. What type of brand personality stimuli do MNCs attempt to provide in their web sites? What are the principal dimensions underlying such stimuli?

RQ2. What type of online communications do MNCs attempt to utilize in their web sites? What are the principal dimensions underlying such tools?

RQ3. Are there any significant relationships between the brand personality stimuli and the use of online communications?

Methodology
Data collection
In recent explorations, content analysis has proved to be an effective method of identifying the basic characteristics of web site communications (Dou *et al.*, 2002; Ghose and Dou, 1998; Hwang *et al.*, 2003; Philport and Arbittier, 1997). Following the recommendations made by Okazaki and Alonso (2002), the content of major brands' web sites in the USA, UK, France, Germany and Spain was examined. Sixty-four American MNCs, drawn from *BusinessWeek's* (2002) "Top Global Brands 100" were chosen for analysis. This list comprises brands of a value greater than $1 billion. There were two selection criteria:

(1) brands had to be global in nature, deriving 20 per cent or more of sales from outside their home country, and

(2) there had to be publicly available marketing and financial data on which to base the valuation.

American MNCs were chosen because American MNCs offer an ideal database of "localized" web sites (i.e. web sites created in the host country in the local language) in multiple markets. This enables researchers to examine the web sites created by the same company in both home and host markets, and thus establish cross-cultural data equivalency. In this light, the current study can be regarded as cross-cultural marketing communication research, and this justifies a content analysis approach. The host countries chosen were the UK, France, Germany, and Spain, because they are the largest and most economically developed national markets within the European Union (Harris and Attour, 2003).

Table II summarizes the product distribution of the brands. For each brand, the main corporate site of the American headquarters was first identified. Next, their respective web sites with localized URLs in each country were identified, using search engines in the local language (Yahoo!, Google, Alta Vista, Lycos, etc.). In the attempt to create an exhaustive list of host-country web sites, the parent company's web site was then searched for any links to "Our Global Network". A so-called "global site" with multiple language options was considered a "gateway" to each host-country site. This procedure identified 64, 57, 49, 57, and 43 web sites in the USA, UK, France, Germany and Spain, respectively.

Coding instruments
The variables included in the analysis are shown in Table III. With regard to brand personality stimuli, functional stimuli involve such attributes as beneficial, unique, superior, reliable, rational, competitive, and assertive, while expressive stimuli include dreaming, secure, humorous, prestigious, sensual, popular, and likeable. The operationalizations of brand personality stimuli are given in Table IV. The majority of the definitions of online brand personality attributes were adopted from the

Classifications	Per cent	Companies
Consumer durable goods	23.4	3M, Apple, Caterpillar, Dell, Duracell, Ford, GE, Gillette, Harley Davidson, Hewlett Packard, IBM, Intel, Kodak, Motorola, Xerox
Consumer non durable goods	32.8	Avon, Bacardi, Barbie, Budweiser, Coca Cola, Colgate, GAP, Heinz, Jack Daniels, Johnson & Johnson, Kellogg's, Kleenex, Kraft, Pepsi, Levi's, Marlboro, Merck, Nike, Pfizer, Polo Ralph Lauren, Tiffany, Wrigley's
Services	40.6	Accenture, Amazon.com, American Express, AOL, AT&T, Burger King, Cisco Systems, Citibank, Disney, FedEx, Goldman Sachs, Hertz, JP Morgan, KFC, McDonald's, Microsoft, Morgan Stanley, Merrill Lynch, MTV, Oracle, Pizza Hut, Starbucks, Sun Microsystems, TIME, Wall St. Journal, Yahoo!
Industrial product	3.2	Boeing, Mobil

Table II.
American MNCs examined in this study (N = 64)

Measurement	Items	Scale type
Brand personality stimuli (dependent variables)	Functional stimuli (beneficial, unique, upper class, reliable, rational, competitive, assertive), expressive stimuli (glamorous, secure, humorous, prestigious, sensual, popular, likeable)	Three point scale (1 weak, 2 moderate, 3 strong)
Online communications (independent variables)	Brand specific information, client registration/log in, corporate information, corporate news release, country/language option, culture/entertainment, direct online transaction, education/training, e mail alert, FAQs, free download, general product information, global/local site options, guest book/customer feedback, indirect online transaction, investors relationship, jobs/carrier development, links, office/store locator, product/brand news release Promotion/prizes/sweepstakes, search engine, sitemap	Dichotomous scale (presence 1, absence 0)

Table III.
Summary of measurement items

extensive literature on creative strategies in advertising (e.g. Batra *et al.*, 1996; Geuens and De Pelsmacker, 1998; Laskey *et al.*, 1989; O'Guinn *et al.*, 2003).

The online communications were classified into 23 forms, which were partially derived from Ghose and Dou's (1998) research on web site content analysis, while consulting the prior work of Dou *et al.* (2002), Hwang *et al.* (2003) and Philport and Arbittier (1997). In addition, in order to make an exclusive list of the tools, a series of in-depth interviews was conducted with practitioners of interactive media planning, such as Terra/Lycos. Their operationalizations are presented in Table V.

Coding procedure
Four trilingual coders were employed, all "sworn translators" certified by the Spanish Government for their exceptional linguistic preparation. All four were native Spanish:

two specialized in English and French, and two in English and German. Two coders
coded every sample web site. It was recognized that some loss of information might
occur because non-native coders were used to analyse foreign web sites. However, it
was accepted that such potential bias was minimized by the coders' extensive
linguistic preparation: they had all received full four-year university training in the
relevant foreign language, and had lived in the relevant country for more than two
years. In addition, the subjective interpretation of textual information was minimal,
since the coders were responsible for examining only major copy, headlines, text, and
visuals on the web sites.

Categories	Attributes	Definitions
Functional stimuli	Assertive[b]	Utilize high pressure and a sense of urgency so that consumers will act quickly. Use "Call or Click now" "Limited time offer" "Your last chance to save" "One time only sale", etc.
	Beneficial[b]	Show, in a straightforward manner, the rewards or benefits of using the brand. Sometimes, provide "before" and "after" pictures to show the effects of the products
	Competitive	Explicitly or implicitly claim or state superiority over competitors. Sometimes, after reminding consumer of claims made by competitors, refute them
	Rational[b]	Start with objective reasons why the brand will be satisfying and reach a conclusion in favour of buying, emphasizing the logic behind the persuasion
	Trustworthy[a]	Provide persuasive arguments for product attributes and functions by means of statistics, charts, graphs, etc. from reliable sources
	Unique[b]	Make explicit claims about one specific attribute (or sometimes two if they are complementary) that makes the brand different from competitors
	Upper class[b]	Make an explicit or implicit reference to upscale nature of the brand. Emphasize that the ownership of the brand can increase the social status, pride or satisfaction of the user
Expressive stimuli	Glamorous[b]	Enable consumers to imagine themselves as rich, famous, or accomplished, or in other more dreamlike and enjoyable types of situation
	Humorous[c]	Utilize stimuli intended to amuse or entertain, such as puns, nonsense, sentimental humour, satire or comedy
	Likeable[a]	Link the brand with a "good feeling" such as experiencing love, family affection or a friendly relationship
	Popular[b]	Use a spokesperson, celebrity, expert or typical satisfied customer to emphasize the brand's attributes
	Prestigious[c]	Indicate explicitly the fulfilment of the desires for money, power, social status and material possessions
	Secure[b]	Highlight the importance of avoiding some harm or danger that may arise from not using the brand or not taking some recommended action
	Sensual[c]	Utilize various degrees of (seductively dressed, semi nude or completely nude) eroticism, or the verbal suggestion of sexual acts

Sources: Based on the literature review [a] Batra *et al.* (1996); [b] O'Guinn *et al.* (2003); [c] Geuens and
De Pelsmacker (1998)

Categories	Definitions
Brand specific information[a]	Information associated with individual brands with links to the brand's page
Client registration/log in[b]	A password secured entry system to provide some private information in exchange for authorized collection of users' data
Corporate information[a]	Any information about the company including history and founders
Corporate news release[a]	Updated press news release with information about the company and/or the industry in general
Country/language option[b]	A multi language option to browse web sites, both in the country's own language and with information specific to the country
Culture/entertainment[d]	Options to provide games or any form of entertaining activities in an online form, including narrative, historical or encyclopaedic information about the related products or brands
Direct online transaction[a]	Functions enabling consumers to purchase goods and services on the web, via secured credit card transactions or fill in forms to request bills
Education/training[d]	Options to provide learning opportunities with various forms of educational or training programs, including a list of conferences, seminars, colloquiums, meetings, etc. for this purpose
E mail alert[d]	Functions enabling consumers to solicit periodic notifications about corporate, product or brand information
FAQs[b]	Solutions for the common problems encountered by consumers. Generally provided in "Technical support" sections
Free download[d]	Functions enabling consumers to download brochures, pamphlets, software programs, etc. associated with products or brands
General product information[a]	Comprehensive description of the product category in general
Global/local site options[d]	Provision of language or country options enabling consumers to choose a global web site or a localized web site
Guest book/customer feedback[b]	Online based contact forms that enable consumers to send their feedback or inquiries from the web site
Indirect online transaction[a]	Sales information only, such as contact information for local sales representatives, stores or distributors
Investor relations[a]	Any features targeting prospective and current investors with financial information, such as profits and losses, assets, stock prices, etc.
Jobs/career development[c]	Currently available job opportunities and descriptions of them
Links[c]	Hyperlinks connected to other relevant web sites
Office/store locator[b]	"Where to buy" information, with a search engine function to find an outlet or representative in a specific location
Product/brand news release[d]	Updated press news release announcing a new product or brand
Promotion/prizes/sweepstakes[c]	Information related to specific incentives that are not included in the product category of each company
Search engine[c]	Search functions enabling users to locate interesting items within the web site
Sitemap[c]	Schematic representation or list of topics to enable users to locate relevant information within the web site

Table V.
Operationalizations of online communications

Sources: [a] Hwang *et al.* (2003), [b] Dou *et al.* (2002), [c] Ghose and Dou (1998), [d] based on the in depth interviews with practitioners

The unit of analysis was determined to be the first page or homepage of the web site, excluding analysis of hyperlinked pages. This decision was made because, as the size of web sites varies considerably, evaluating an entire site could be extremely time-consuming as well as confusing (Ha and James, 1998). In addition, Hwang *et al.* (2003) argue that "the homepage is central to web-based communication because it takes on a role more important than the headline of traditional print ads".

With regard to the strength of brand personality stimuli, the coders were instructed to measure the strength of the stimulus on a three-point semantic scale: "1" was assigned when the stimulus was weak, "2" when it was moderate; and "3" when it was strong. First, the coders were given instruction material that included examples of "strong" "moderate" and "weak" stimuli for all coding categories. For example, a web site featuring "assertive" stimuli was to be coded as strong if it utilized straightforward, hard-hitting slogans in main copy or headings (e.g. "Call or Click now!" or "Your last chance to save") along with interactive imagery (e.g. banners, buttons, flash or interstitials). A web site was to code as moderate if there was no interactive imagery, and if there was only a brief use of promotional language in subheadings. A web site was to be coded as weak in "assertive" stimuli if the brand's description included only a mild recommendation to purchase. If none of the stimuli categories were present in a web site, then 0 was to be coded.

Each form of online communications was assessed for its presence or absence in each web site. Specifically, the standard procedures for dummy and effect coding were adopted, in which values of "1" and "0" were assigned for answers of "Yes" and "No", respectively, (Hair *et al.*, 1998).

Coder training
First, the researcher reviewed with all the coders all the conceptual and operational definitions used in the coding scheme. Next, the four coders were divided into two linguistic pairs, and each pair evaluated independently 20 US web sites that were not included in the final analysis. After coding all the web sites, coding agreement was first checked within each pair, by comparing each coder's results. Then, the results were compared between the pairs, and finally with those of the researcher. After assessing agreement level on each coding category, the coders received an additional training session and recoded those items that they had misunderstood or confused. After this initial training procedure, each linguistic pair was given 20 French and 20 German web sites, respectively, that were not included in the final analysis. The recoded results were compared within the pair, and when the paired coders disagreed, they examined the web sites together, discussed the disagreement, and learned how to make the final decision. When the paired coders could not reach a final consensus, disagreements were resolved by consultation between the coders and the researcher. Throughout the final analysis, this multiple-stage "agreement-by-discussion/consultation" procedure was applied to each coding category.

Inter-coder reliability
The inter-coder reliability was assessed on Perreault and Leigh' *Ir* (1989), which several researchers consider the best (Kolbe and Burnett, 1991). The superiority of Perreault and Leigh's *Ir* over Scott's ϕ or Cohen's κ lies in the fact that it does not have a multiplicative chance agreement assumption: rather, it explicitly measures the level of agreement that might be expected by a true level of reliability (Perreault and Leigh,

1989; Taylor and Stern, 1997). At the end of the coding procedure, the results were compared item by item between each linguistic pair. The reliability of brand personality stimuli was between 0.82 and 0.94, while that of online communications ranged from 0.91 to 0.99. As shown in Table VI, the majority of the reliability indexes exceeded the minimum value of 0.80 recommended by Perreault and Leigh (1989), and were thus determined to be satisfactory. All coding was completed during July of 2003.

Measurement	Categories	Perreault and Leigh's Ir					
		USA	UK	France	Germany	Spain	All
Brand personality stimuli	Assertive	0.81	0.84	0.89	0.82	0.95	0.86
	Beneficial	0.83	0.86	0.97	0.84	0.97	0.89
	Competitive	0.76	0.79	0.77	0.77	0.90	0.80
	Rational	0.92	0.95	0.79	0.93	1.00	0.92
	Trustworthy	0.91	0.87	0.73	0.84	0.86	0.84
	Unique	0.93	0.89	0.87	0.86	0.88	0.89
	Upper class	0.86	0.82	0.81	0.79	0.81	0.82
	Glamorous	0.88	0.81	0.97	0.93	0.88	0.89
	Humorous	0.90	0.83	0.77	0.95	0.90	0.87
	Likeable	0.83	0.76	0.79	0.88	0.83	0.82
	Popular	0.85	0.92	0.73	0.92	0.90	0.86
	Prestigious	0.85	0.89	0.96	0.94	0.97	0.92
	Secure	0.87	0.91	0.98	0.96	0.99	0.94
	Sensual	0.80	0.84	0.90	0.89	0.91	0.87
Forms of online communications	Brand specific information	0.83	0.87	0.95	0.95	0.95	0.91
	Client registration/log in	0.99	0.99	0.92	0.88	0.93	0.94
	Corporate information	0.99	0.99	0.88	0.92	0.85	0.93
	Corporate news release	0.99	0.98	0.85	0.94	0.88	0.93
	Country/language option	0.99	0.99	0.94	0.87	0.95	0.95
	Culture/entertainment	0.99	0.97	0.99	0.91	0.82	0.94
	Direct online transaction	0.99	0.99	0.94	0.84	0.95	0.94
	Education/training	0.99	0.99	0.95	0.88	0.83	0.93
	E mail alert	0.99	0.98	0.94	0.90	0.82	0.93
	FAQs	0.98	0.99	0.96	0.99	0.97	0.98
	Free download	0.99	0.99	0.96	0.99	0.86	0.96
	General product information	0.97	0.99	0.95	0.98	0.84	0.95
	Global/local site options	0.99	0.99	0.98	0.99	0.99	0.99
	Guest book/customer feedback	0.99	0.99	0.93	0.97	0.99	0.97
	Indirect online transaction	0.98	0.98	0.98	0.99	0.99	0.98
	Investor relations	0.98	0.99	0.99	0.99	0.95	0.98
	Jobs/career development	0.99	0.97	0.99	0.98	0.99	0.98
	Links	0.97	0.99	0.94	0.99	0.99	0.98
	Office/store locator	0.99	0.99	0.99	0.83	0.95	0.95
	Product/brand news release	0.99	0.98	0.93	0.85	0.97	0.94
	Promotion/prizes/sweepstakes	0.98	0.99	0.99	0.78	0.86	0.92
	Search engine	0.98	0.99	0.99	0.82	0.99	0.95
	Sitemap	0.99	0.99	0.94	0.86	0.99	0.95

Table VI.
Reliability of brand personality stimuli and online communications

Notes: $Ir = [(F/N \quad (1/k))][k/(k \quad 1)]^5$ for $F/N \geq 1/k$; $Ir = 0$ for $F/N \leq 1/k$; where F is the frequency of observed agreement, N is the total number of pairwise judgement, and k is the number of categories into which the responses can be coded

Results

Analysis of variance
Table VII summarizes the results of brand personality stimuli. To statistically test our
RQ1, a univariate analysis of variance (ANOVA) was applied for brand personality
stimulus across countries. The rationale for this was that if American MNCs are
attempting to create a uniform set of online brand personality dimensions for their
American and European web sites, then no statistical significance should be found in the
first place. The resultant F-statistics showed no significant difference in any of the
attributes. Next, a multivariate analysis of variance (MANOVA) was carried out to
assess overall group differences not found in the univariate ANOVAs. It was established
that none of the basic assumptions of MANOVA were violated (Hair *et al.*, 1998). The
Wilks' lambda was found to be statistically insignificant (p 0.94). Therefore, it is
reasonable to conclude that the set of brand personality stimuli does not differ as a whole
across the five sets of web sites, and American MNCs are thus formulating similar
dimensions of online brand personality in the USA, UK, France, Germany and Spain.

Next, the results of online communications were summed by the country of the site.
Using the same logic applied in the case of brand personality stimuli, a MANOVA was
carried out across five countries. The resulting statistics were statistically significant,
indicating that there are differences across the five countries (Wilks' lambda   0.62,
F 1.35, p 0.02). However, a careful observation of the tests of between-subject
effects indicates that only 3 out of 23 tools are statistically different: global/local site
option, investor relations, and direct online transactions. Therefore, in order to
determine the dimensions of differences that can distinguish among the groups, a
MANOVA was rerun excluding these three categories. The resulting statistics were
then statistically insignificant (Wilks' lambda   0.81, F 0.66, p 0.99). Therefore,
it was concluded that, excluding global/local site options, investor relations, and direct
online transactions, American MNCs tend to use a relatively uniform set of online
communications across the countries examined. Table VIII indicates that American

Categories	Attributes	Total	USA ($n = 64$)	UK ($n = 57$)	France ($n = 49$)	Germany ($n = 57$)	Spain ($n = 43$)	F	P
Functional stimuli	Beneficial	1.06	1.06	1.02	1.04	1.09	1.09	0.46	0.77
	Unique	1.22	1.30	1.19	1.10	1.26	1.23	1.02	0.40
	Upper class	1.24	1.20	1.23	1.22	1.32	1.23	0.33	0.86
	Trustworthy	1.74	1.70	1.81	1.45	1.84	1.88	1.16	0.33
	Rational	1.85	1.88	1.93	1.57	1.89	1.93	1.30	0.27
	Competitive	1.03	1.02	1.02	1.06	1.04	1.02	0.36	0.84
	Assertive	1.46	1.52	1.58	1.35	1.40	1.40	0.84	0.50
Expressive stimuli	Glamorous	1.23	1.24	1.25	1.20	1.21	1.26	0.07	0.99
	Secure	1.07	1.06	1.08	1.02	1.07	1.12	0.77	0.55
	Humorous	1.43	1.44	1.46	1.39	1.47	1.37	0.13	0.97
	Prestigious	1.20	1.30	1.30	1.10	1.11	1.16	2.33	0.06
	Sensual	1.16	1.12	1.11	1.20	1.26	1.12	0.95	0.43
	Popular	1.39	1.36	1.40	1.47	1.39	1.30	0.22	0.93
	Likeable	1.57	1.61	1.58	1.41	1.70	1.53	0.77	0.54

Notes: MANOVA results: Wilks' lambda = 0.86; df = (56, 1,010); F = 0.72; p = 0.94

Table VII.
Coding results of brand
personality stimuli

MNCs in fact vary their usage of the three excluded tools according to the targeted market: global/local site option is used more in the host countries, while investor relations and direct online transactions are used more at home.

Factor analysis
RQ1 seeks to identify the principal dimensions of brand personality stimuli that MNCs attempt to include in their web sites, with the aim of making consumers perceive the intended brand personality. To answer this question, we first carried out a factor analysis of the results of both brand personality stimuli and online communications. A factor analysis was run because collapsing the predictor set was considered beneficial to degrees of freedom and power. To validate the appropriateness of the factor analysis, two measures examined the entire correlation mix (Hair *et al.*, 1998). First, Bartlett's test of sphericity ($p < 0.001$) indicated the statistical probability that the correlation matrix has significant correlations among at least some of the variables. Second, the Kaiser-Meyer-Olkin measure of sampling adequacy (0.91) showed superb sampling adequacy. Varimax rotation with Anderson-Rubin method was chosen to eliminate multicollinearity. Table IX shows the results of the principal component analysis applied to brand personality stimuli. Only eigenvalues larger than 1 were retained. Different rotation schemes were tried and the final five-factor solution was relatively easy to interpret: sophistication, excitement, affection, popularity, and competence. Approximately 54 per cent of the total variance was explained. These results are similar to the brand personality dimensions suggested by Aaker (1997), with affection and popularity replacing sincerity and ruggedness. Given that the selected samples are the "most valuable brands" (*BusinessWeek*, 2002), it seems consistent that sophistication was found to be the most important factor.

In addressing *RQ2*, the same procedure was repeated for the forms of online communications, and the results are shown in Table X. Again, both Bartlett's test of sphericity ($p < 0.001$) and the Kaiser-Meyer-Olkin measure of sampling adequacy (0.64) justified the use of the factor analysis. After attempting different rotation schemes, 23 forms of online communications were reduced to a seven-factor solution: stakeholder relations, direct sales, choice functions, connectedness, indirect sales, orientation, and product positioning. This solution explained about 55 per cent of the total variance.

Multiple regression analysis
RQ3 addresses the links between brand personality dimensions and online communications. In exploring this question, the five and seven factor scores of online brand personality (dependent variables) and forms of online communications (independent variables), respectively, were used for stepwise multiple regression analyses. Prior to the analysis, the independence of error terms was ensured by using the Durbin-Watson statistic (Hair *et al.*, 1998).

Online communications	Total	USA	UK	France	Germany	Spain	*F*
Global/local site option	66.2	37.9	84.2	65.3	75.4	74.4	9.99***
Stakeholder relations	28.3	45.5	26.3	16.3	22.8	25.6	3.66**
Direct online transactions	50.0	71.2	42.1	42.9	43.9	44.2	4.10**

Table VIII.
Online communications across countries (per cent)

Notes: Per cent of the web sites in each country; **$p < 0.01$; ***$p < 0.001$

Personality dimensions	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Sophistication					
Rational	0.76				
Trustworthy	0.68				
Upper class	0.65				
Prestigious	0.46				
Excitement					
Sensual		0.76			
Assertive		0.68			
Humorous		0.62			
Affection					
Likeable			0.81		
Glamorous			0.55		
Popularity					
Popular				0.83	
Unique				0.45	
Competence					
Secure					0.73
Competitive					0.62
Beneficial					0.55
Eigenvalue	1.91	1.73	1.43	1.25	1.15
Accumulative variance explained (per cent)	13.65	26.03	36.22	45.16	53.37

Notes: Extraction: principal component method; rotation method: Varimax with Kaiser normalization; rotation converged in six iterations; cut off point: 0.40

Table IX.
Factor analysis of brand
personality stimuli

The results of the regression analyses are shown in Table XI. The overall results of the regression analyses provide a modest but consistent support for the basic propositions of our theoretical framework. In all models 1 through 4, the joint contribution of the independent variables is statistically significant at $p < 0.001$. Model 2 (explaining excitement) gained the most solid evidence (R^2 0.25), while Model 5 (explaining competence) was the dimension that had least to do with the online communications of web sites (R^2 0.03). Models 1, 3 and 4 (explaining sophistication [R^2 0.11], affection [R^2 0.13], and popularity [R^2 0.15],, respectively) were moderately associated with the online communications.

For the predictor variables in the stepwise regression analyses, the findings in Model 1 reveal that sophistication was directly and positively related to stakeholder relations (β 0.22, $p < 0.001$), direct sales (β 0.14, $p < 0.05$), choice functions (β 0.13, $p < 0.05$), and orientation (β 0.17, $p < 0.05$). By contrast, in Model 2, excitement was directly and positively related to direct sales (β 0.19, $p < 0.001$), connectedness (β 0.14, $p < 0.05$), and indirect sales (β 0.33, $p < 0.001$), but directly and negatively related to stakeholder relations (β 0.29, $p < 0.001$). Likewise, in Model 3, affection was directly and negatively related to stakeholder relations (β 0.24, $p < 0.001$) and choice functions (β 0.20, $p < 0.001$). This suggests that stakeholder relations have complicated and conflicting effects depending upon the type of brand personality dimension. Furthermore, a closer inspection of Table X shows that the contribution of choice functions moves in the same direction as that of stakeholder relations.

Table X.
Factor analysis of online communications

Online communications	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
Stakeholder relations							
Investors relationship	0.73						
Corporate news release	0.72						
Jobs/carrier development	0.69						
Corporate information	0.59						
Search engine	0.48						
Education/training	0.45						
Guest book/customer feedback	0.44						
Direct sales							
Direct online transaction		0.76					
Client registration/log-in		0.72					
Choice functions							
Country/language option			0.75				
Global/local site option			0.71				
General product information			0.53				
Connectedness							
Office/store locator				−0.71			
Free download				0.70			
Links				0.51			
Indirect sales							
Product/brand news release					0.71		
Indirect online transaction					0.66		
Culture/entertainment					0.49		
Promotion/prizes/sweepstakes					0.48		
Orientation							
Sitemap						0.70	
FAQs						0.65	
Product positioning							
Brand specific information							0.69
E-mail alert							0.41
Eigenvalue	3.43	2.25	1.71	1.59	1.36	1.22	1.05
Accumulative variance explained (per cent)	14.91	24.71	32.16	39.07	44.97	50.27	54.84

Notes: Extraction: principal component method; rotation method: Varimax with Kaiser normalization; rotation converged in eight iterations; cut-off point: 0.40

Model	Sophistication (Model 1)	Excitement (Model 2)	Affection (Model 3)	Popularity (Model 4)	Competence (Model 5)
Stakeholder relations	0.22***	0.29***	0.24***	0.08	0.01
Direct sales	0.14**	0.19***	0.07	0.03	0.02
Choice functions	0.13**	0.06	0.20***	0.11**	0.02
Connectedness	0.04	0.14**	0.10	0.29***	0.03
Indirect sales	0.07	0.33***	0.01	0.02	0.11
Orientation	0.17**	0.08	0.10	0.20***	0.16**
Product positioning	0.09	0.09	0.08	0.13**	0.06
R^2	0.11	0.25	0.13	0.15	0.03
Adjusted R^2	0.10	0.24	0.12	0.14	0.02
F	8.45***	22.06***	19.32***	11.94***	6.91**

Notes: Standardized coefficient; **$p < 0.05$; ***$p < 0.001$

Table XI.
Multiple regression
analysis of online brand
personality dimensions

In Model 4, popularity received a significant positive effect from connectedness (β 0.29, $p < 0.001$), and a significant negative effect from orientation (β 0.20, $p < 0.001$), product positioning (β 0.13, $p < 0.05$), and choice functions (β 0.11, $p < 0.05$). Given the results for Model 3, please note that in Model 4 the sign of the contribution of stakeholder relations also coincided with that of choice functions, although the effect was statistically insignificant. Finally, in Model 5, orientation had a significant positive effect (β 0.16, $p < 0.05$) on competence.

Finally, in the attempt to conduct comparative analysis, multiple regression was repeated separately for the home market (USA) and for each of the four host markets (UK, France, Germany, and Spain). Table XII summarizes the predictors in each brand personality dimension, with the directions of the effects indicated by positive or negative signs. As can be clearly seen, the negative association of stakeholder relations with excitement is fairly consistent across the markets, except for the UK. Also, Indirect sales are positively related with this personality dimension in all the markets. Similarly, with respect to affection, stakeholder relations exhibit a negative effect in all countries but France, while choice functions act as a significant negative predictor in France and Spain. The popularity dimension is strengthened positively by connectedness in the USA, UK, and France, while orientation affects negatively this dimension in the USA and Spain.

Discussion

A factor analysis extracted five underlining dimensions of brand personality stimuli. The variance explained by each factor ranges from 8.2 to 13.6 per cent, with sophistication the most prominent dimension. Given that there were no cross-loadings with a cut-off point of 0.40, a five-factor solution is a relatively stable structure. Our content analysis identified three of Aaker's (1997) "Big Five" dimensions: excitement, competence, and sophistication. In particular, the finding that excitement was the second most important factor seems consistent with prior research on electronic marketing, which identified it as one of the most important psychological motives in internet usage (Korgaonkar and Wolin, 1999; Lin, 1999).

	Sophistication	Excitement	Affection	Popularity	Competence
USA		Stakeholder relations (−) Indirect sales (+)	Stakeholder relations (−) Direct sales (−) Orientation (−)	Connectedness (+) Orientation (−)	Orientation (+)
UK					
France	Direct sales (+)	Indirect sales (+) Stakeholder relations (−) Direct sales (+) Indirect sales (+)	Stakeholder relations (−) Choice functions (−) Connectedness (−)	Connectedness (+) Connectedness (+)	Product positioning (−)
Germany		Stakeholder relations (−) Direct sales (+) Indirect sales (+)	Stakeholder relations (−)		
Spain	Stakeholder relations (−)	Stakeholder relations (−) Direct sales (+) Indirect sales (+)	Stakeholder relations (−) Choice functions (−)	Stakeholder relations (−) Orientation (−)	

Table XII.
Cross market analysis of online brand personality dimensions

Similarly, a principal component analysis produced a seven-factor solution for the forms of online communications. The variance explained by each factor ranges from 4.6 to 14.9 per cent, with stakeholder relations being the most important. This finding seems to corroborate the prediction of Philport and Arbittier (1997), who asserted that the internet medium would change the nature of advertising from persuasion to relationships. Also, as many as seven variables were extracted in this factor, in comparison with between two and four variables in the others. Taking into account the variance explained and the number of variables extracted in each factor, the importance of each factor varies substantially in a descending order.

Next, although the evidence was relatively modest, multiple regression analyses found consistent associations between the intended brand personality dimensions and the use of online communications. The statistically significant joint contribution of independent variables in all models indicate that American MNCs utilize a range of online communications to provide a series of stimuli, with the aim of making consumers perceive the intended brand personality dimensions. The overall R^2 does not appear to be massive, indicating that an important portion of the variance is accounted for by other factors. However, given the exploratory nature of a study that looked only at the first page or homepage of the web sites, these data may be indicative of the strength of the relationships between the dependent and independent variables.

Excitement was positively associated with direct and indirect sales, and connectedness, while being directly and negatively associated with stakeholder relations. This finding is in line with the results of Dou *et al.* (2002), who reported that firms from internet-leading countries are likely to facilitate online transactions with international buyers, by offering purchase assistance, technical support, and extranet capability. Thus, it is possible that American MNCs tend to use detailed, descriptive information on corporate activities in the attempt to make consumers perceive this personality. In addition, a transactional platform with various options and orientation functions may have been created, with the aim of making consumers feel tempted, invited and aroused by a high status or upper-class brand. By contrast, access to shareholders' information or career development, for example, may not be seen as an effective tool in stimulating an exciting purchase experience.

What is interesting is the negative contribution of choice functions, orientation, and product positioning to the popularity dimension. This may be partially explained by the operationalization of the two attributes of popularity: popular and unique. In Table IV, the former was defined as "use a spokesperson, celebrity, expert or typical satisfied customer" and the latter as "make explicit claims of one specific attribute". Both attributes are intended to emphasize the brand's competitive position. Such features may be replaced by a more standardized form of orientation (in particular, FAQs) to persuade consumers of the product attributes. Similarly, the use of choice functions (language and site options) may lead to less use of such standardized endorsements, because human models and visual images may need to be adapted from one country to another. With regard to product positioning, brand-based news alerts may not be delivered in a visual format featuring a famous spokesperson or a celebrity, but rather in a plain textual format. On the other hand, connectedness includes free downloads associated with unique features or services of the brand, and this may have contributed positively to this dimension.

Web sites are full of online communications and so are likely to deliver objective textual information, which is unlikely to provide emotionally charged appeals. Such a tendency was observed in affection, which was negatively related to stakeholder relations and choice functions. Hence, American MNCs may have opted for such communication tools carrying visual or non-textual information, with the aim of stimulating the perception of an affective personality. In this vein, it is particularly interesting to observe the sign of the contribution of stakeholder relations and choice functions. That is, while the two tools are negatively associated with affection, which is dominated by two expressive stimuli, they are positively associated with sophistication, which is dominated by three functional stimuli. Furthermore, the negative contribution of stakeholder relations is also observed in excitement, which is dominated by two expressive stimuli. In short, the forms of online communications offering descriptive information are related to functional stimuli, and those leading to local tastes are related to expressive stimuli.

At the risk of oversimplifying, a tempting interpretation is that MNCs may have attempted to use relatively standardized information, such as investor relations, corporate news releases, etc. to stimulate functional stimuli, regardless of country or language. On the other hand, the capability to switch from one country site to another may have allowed MNCs to accommodate localized tastes in colours, visuals, human models, or background scenes, with the aim of stimulating expressive stimuli. This interpretation seems to be in line with recent findings on American MNCs' "multilingual" web sites, which often practice variations in design and layout in an attempt at localization (Dou *et al.*, 2002; Hillier, 2003).

In addition, our cross-market analysis in Table XI seems to provide further evidence of the relationship between online communications and brand personality dimensions. Stakeholder relations, consisting of a relatively standardized information set, influence negatively excitement and affection across the markets, and these directions are consistent with our previous suggestions. The same is true for indirect sales, which has a positive effect on the formulation of excitement in all the markets. Similarly, the negative sign of choice functions in affection corroborates our suggestion that expressive stimuli would lead to local tastes: American MNCs do seem to intend to accommodate specific local preferences in France and Spain. On the other hand, little association between the dependent and predictor variables is observed in the UK and Germany. This seems to implicitly indicate that in these markets objective or rational information is favoured over country-specific preferences.

In the case of sophistication, the observed effects of online communications are much less accentuated in all the markets except France and Spain, but this may be due to a lack of observations per market. Lastly, the cross-market analysis seems to reaffirm the results of the aggregate analysis, in that competence has least relevance to online brand personality dimensions.

Conclusion
The primary purpose of this study was to identify the "intended" brand personality dimensions of American MNCs in global markets. To this end, 270 web sites of 64 American MNCs were examined in the USA, UK, France, Germany, and Spain. A content analysis of web sites identified five underlying "intended" dimensions,

namely, sophistication, excitement, affection, popularity, and competence. On this basis, the following conclusions can be drawn.

First, the present study contributes to the literature by its attempt to classify brand personality stimuli in terms of the cognition versus affection framework. More specifically, our study was based on the premise that the dimensions of brand personality stimuli are intrinsically traceable from the perspective of the creative advertising appeals that MNCs attempt to employ on their web sites. Much research on advertising creative strategy involves this dyad: for example, informational versus transformational, or hard sell versus soft sell, or rational strategies versus emotional strategies. The existing literature, however, has hardly explored the links between creative appeals and brand personality. Managerially, this is important, because MNCs and agencies could actually control the use of online communications with the aim of making consumers perceive the desired brand personality on the web.

Second, this study provides a practical observation relating to whether MNCs are attempting to create a uniform set of brand personality dimensions across global markets. Although this study is exploratory, a factor analysis did succeed in extracting a basic structure of such dimensions. Furthermore, online communications were significantly related to the brand personality dimensions, suggesting that the standardization versus localization of web site content may be key to understanding such relationships. This is important, because, although the global nature of the internet medium is often spoken about, little empirical research has been conducted on web site standardization across countries, especially in terms of MNCs' online communication strategies.

Limitations and future research directions
This study was planned as a preliminary phase of a study investigating brand personality formation in global online markets. In this phase, content analysis was employed as a research methodology, and this implies several important limitations. First, the interpretation of our findings should be limited only to the apparent content observed by the coders, and not extended to the underlying managerial decisions. Any generalizations on brand web sites should be avoided because this study examined only the first page or home page of the web sites. Second, the study employed multi-lingual "sworn translators" of Spanish nationality for the coding. However, the relevant literature generally agrees that native coders are generally more effective in increasing study reliability. Although the coders used in this study had received sufficient philological and linguistic education in their chosen foreign languages and cultures, it is possible that some relevant information may have been lost during the coding process.

Third, although this study attempted to explore some possible dimensions of brand personality as reflected in the brand web sites, some may argue that it is inappropriate to talk of their "formulation" on the internet, because the overall promotional budget of this medium is still low. It may therefore be misleading to attribute any such "formulating" power to it. The findings of this study should, therefore, be interpreted in a context of congruence between the internet and other traditional media. That is, the internet may not be able to recreate the dimensions of brand personality, but it can enhance and complement them.

Finally, as a direct extension of this research, an empirical survey of MNCs' marketing managers should be conducted, in order to establish which dimensions of brand personality they intend to create in internet consumers' minds. A future study should also explore who is actually responsible for the "creation" of brand personality. Do MNCs managers intend to create brand personality on the web? Or is this a task for agencies? The answers to these questions should help clarify those aspects of advertisers' intentions that the literature on brand personality has not yet addressed.

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