# Combining online market research methods for investigating brand alignment: the case of Nespresso

Silvia Ranfagni, Monica Faraoni and Lamberto Zollo
*Department of Economics and Management, University of Florence, Florence, Italy, and*
Virginia Vannucci
*Department of Business Administration, University of Verona, Verona, Italy*

## Abstract

**Purpose** – The purpose of this paper is to propose a research approach to investigate brand alignment by exploiting textual data from online brand communities in the coffee industry. Specifically, consumer brand associations from user-generated content (UGC) and company brand associations from firm-generated content (FGC) are explored to measure the alignment between brand identity and brand image. The selected context of research is the beverage industry wherein companies are called on to develop appropriate digital websites and brand communication strategies to enhance the consumers' brand experience.

**Design/methodology/approach** – The authors introduce a research approach that integrates netnography with text mining analysis. Since brand associations were the basis of the study's analysis, the authors focused on text mining procedures, providing data (co-occurrences) corresponding to brand associations that consumers perceive and that the company communicates. Data were used to develop the measurements of brand alignment.

**Findings** – The main findings of this research highlight the importance for both scholars and practitioners of determining brand alignment of beverage products in online communities. Knowing the alignment between the way a company communicates its brand identity and how this is perceived by consumers allows for effectively reviewing brand communication.

**Originality/value** – Although the combined analysis of the alignment between brand image and brand identification has received attention in marketing literature, most scholars have neglected how to measure brand alignment. This is a need for many marketing managers in the coffee industry who are now moving in digital environments where the role of consumers is not that of receivers of brand communication but rather that of cocreators of brand value.

**Keywords** Brand image, Brand identity, Beverage, Online community, Netnography, Text mining

**Paper type** Research paper

## 1. Introduction

The beverage industry is growing exponentially worldwide, driven mainly by the global coffee industry. This is expected to increase by 5.5% between 2019 and 2024, especially in European countries and South America (Mordor Intelligence, 2018). Among the European countries, coffee consumption is highest in Italy, followed by France, Great Britain, Germany and Spain. As stated by the International Coffee Organization (ICO), it is estimated that the European market will grow over the coming years, thanks to the coffee pod and capsule business. Standing out among the top five major international players is Nestlé S.A., which has Nespresso as the key coffee brand in its brand portfolio. Pioneers in the coffee pod and

capsule business and now successful worldwide, Nespresso is considered the coffee brand that "has redefined customer value, found new ways to structure their value creation processes and captured that value with great returns" (Matzler *et al.*, 2013, p. 30). Together with its high quality and innovation, the vast assortments, design of the coffee machines and elegance of the boutique stores also define the competitive positioning of Nespresso which actively interacts with consumers who are not just passive receivers of brand communications. In fact, once the brand is well known, consumers can give voice to their brand relationship in the many virtual settings available (blogs, forums, social networks) as social spaces where they exchange information, opinions and feelings. In this way, they become producers of brand stories, also acting as cocreators of brand meanings (Gensler *et al.*, 2013; Kudeshia and Kumar, 2017). It follows that today a critical issue for many virtually contextualized brands like Nespresso is that of "understanding how to successfully coordinate consumer and firm generated brand stories" (Gensler *et al.*, 2013, p. 243) by analyzing brand alignment, that is, by relating company brand communication as an expression of a defined brand identity (Ghodeswar, 2008) with the consumers' brand perception resulting from brand narratives. The ensuing information could be useful for reviewing brand communication, harmonizing brand stories but above all, for fostering brand equity and therefore, the differential power of the brand (Keller, 2003). Brand research in real settings has largely neglected brand alignment analysis, despite its importance, just as recent studies investigating consumer brand perception from user-generated content (UGC) have done, focusing on the voice of consumers alone. Some studies are an exception (Malär *et al.*, 2012; Ranfagni *et al.*, 2016; Berni *et al.*, 2020) as they have included the voice of the company as a means of comparison in the brand image analysis. In line with these, we propose a research approach that relates brand image from UGC – with brand identity – from company communication and which by combining text mining with the netnography technique provides a brand alignment measurement. We have experimented this approach with Nespresso as it is a brand belonging to the beverage and food industry, where despite the fact that product branding has assumed an important role in developing relationships with consumers (Vranešević and Stančec, 2003), no brand studies have addressed the issue of brand alignment. The paper is structured as follows. After this introduction, the first part illustrates the concept of brand alignment as an assumption of brand equity, highlighting the related research gap in brands studies. This is followed by a description of the actual role of the brand in the coffee industry as our research context. In the second part, we describe the conceptual and procedural basis of our research approach along with the results from the empirical analysis, and in the last part, we address the practical implications, illustrating the main conclusions and highlighting the limitations of our study together with future research paths.

## 2. Theoretical background

### 2.1 Brand equity and brand alignment

One of the most critical challenges marketers traditionally have to face is that of managing and constantly increasing brand equity, that is, the "added value that a brand endows a product" (Farquhar, 1989, p. 24). From a consumer perspective, brand equity is defined as "the differential effect of brand knowledge on consumer response to the marketing of the brand" (Keller, 1993, p. 8). Made up of brand awareness and brand image (Keller, 2003), brand knowledge consists of the personal meanings linked to a brand that are stored in the consumers' memories (Aaker, 2003; Supphellen, 2000). Several studies (Gensler *et al.*, 2013; Nandan, 2005; Grime *et al.*, 2002; Keller, 1993) show that to increase the differentiating power of a brand and thus, brand equity requires the meaning consumers attribute to the brand to be as compliant as possible with the company's brand communication. More specifically, brand

equity requires brand alignment entailing compliance between the consumer's brand image and the brand identity communicated. The more the brand identity and brand image are aligned, the more the consumer's brand knowledge reflects brand communication and the higher the company's brand equity (Nandan, 2005). Brand identity is conceived as "a unique set of brand associations implying a promise to customers and includes a core or extended identity" (Ghodeswar, 2008, p. 5). It expresses all the distinctive traits, benefits and values capable of differentiating a brand (Roy and Banerjee, 2008). Instead, brand image is described as "perceptions [consumers] have about a brand as reflected by the brand associations held in consumer memory" (Keller, 1993, p. 3). While Aaker (1991) considers brand associations as the category of a brand's assets and liabilities including anything linked to a memory of a brand, Keller (1993, 1998) groups them into three categories, namely, attributes, benefits and attitudes. Attributes can be either features linked to the product itself or external aspects of the product linked to the purchase or consumption of the product, such as price information, use and product appearance. Benefits are the personal values that consumers attach to the product or service attributes, and they can be functional, experiential and symbolic. Brand attitudes express the consumers' overall evaluations of the brand. Being represented as a set of verbal propositional networks where brand associations are the informational nodes linked to the brand node in the consumer's memory, brand image differs from brand imagery (Babin and Burns, 1997), which is a "very like picturing and very unlike describing" way of representing a brand (Fodor, 1981, p. 76). It is "a process by which sensory information is represented in working memory" (MacInnis and Prince, 1987, p. 473). Thus, it involves the sensory representation of ideas, feelings and memories that act as perceptions of external stimuli. Brand imagery, as Yuille and Cathpole (1977) point out, can be equated with brand image conceived as a verbal synthesis of the knowledge structure for a brand: once a knowledge structure has been activated, imagery can be generated from information contained in that structure. Due to its linguistic nature, brand image is a concept which adapts better than brand imagery to the analysis of consumer brand perception emerging from textual data. Furthermore, while on the one hand, brand imagery has been investigated in the positive effects, it produces on persuasive advertising (Miller *et al.*, 2000; Miller and Marks, 1997), on the other hand, it has never been used as a yardstick for brand identity for measuring brand alignment which is the aim of our research.

### 2.2 Brand alignment in offline brand studies

Offline brand studies have concentrated more on analyzing the effects that marketing choices generate on the brand image than on brand alignment, despite its strategic importance (Agariya *et al.*, 2012; Meenaghan, 1995). Studies highlight how among the numerous communication instruments, advertising and packaging are the ones that affect consumer brand perception the most. Advertising transfers the functional capabilities of the brand while imbuing it with symbolic values and meanings (Dahlén *et al.*, 2005), and packaging produces a mediated and lived experience of the brand (Schoormans and Robben, 1997). Some studies try to go beyond, showing how by impacting the brand image, sponsorship (Gwinner and Eaton, 1999) and brand extension decisions (Czellar, 2003) can generate brand image incongruity, that is, a discrepancy or "mismatch between brand communication and existing brand associations" (Sjödin and Törn, 2006, p. 34), thus jeopardizing situations of brand alignment. Malär *et al.* (2012) even investigate the drivers of the alignment between the "intended" brand identity (how a company wants consumers to perceive the brand) and the "realized" brand identity (how consumers actually perceive it). These are found in "the singularity of the brand personality profile, the competitive differentiation of the brand, the credibility of brand communication, the depth of consumer product involvement, and the consumers' prior attitude" (p. 728). Since communication plays an important role in

causing brand alignment, it emerges that the more effective the communication, the higher the brand alignment. Malär *et al.* (2012) provide the drivers but not the measurements of brand alignment. Today measuring brand alignment is becoming an urgent need to be met by numerous companies. Marketing scholars stress how companies are losing control of their brand communication (Gensler *et al.*, 2013). They have to do with consumers who, by taking part in blogs, forums and social networks as social spaces where they talk about their brand experiences, can express their perceptions on the brands they interact with (Ramaswamy and Ozcan, 2016). In doing so, they contribute to either cocreating or destroying brand value (Kudeshia and Kumar, 2017). Moreover, since the social media that consumers use to convey information are visible, ubiquitous and available in real time, their brand narratives turn into fast word of mouth and can be highly pervasive (Hennig-Thurau *et al.*, 2010). In addition to interacting with consumers equipped with tools that can interfere with brand communication, companies are also facing digital-based competition (Chen and Chang, 2020): social media together with marketing automation intensify the interactions between businesses and the market, and therefore, they increase the likelihood of changes in the consumers' brand perception because of more accessible comparative analysis across brands (Hu and Trivedi, 2020). Hence, companies could benefit from instruments which, by comparing consumer brand perceptions and company brand communication, determine a brand alignment by exploiting UGC, namely, material created and uploaded on the Internet by nonprofessionals (Presi *et al.*, 2014). To the best of our knowledge, some emerging online brand studies are using UGC to explore brand alignment as a basis for reviewing branding choices together with brand communication.

### 2.3 The UGC in online brand studies and brand alignment

Most online brand studies have prevalently focused on exploring online brand communities and brand experiences (Morgan-Thomas and Veloutsou, 2013), customer engagement in virtual settings (Baldus *et al.*, 2015) and online brand loyalty (Kwon and Lennon, 2009). They have not dedicated much space to the UCG which has been investigated more by marketing studies in the aim of shedding light on its link with company performance. Archak *et al.* (2011) explore whether the textual information embedded by UGC can have an impact on product sales. Tirunillai and Tellis (2012) analyze how magnitude, sentiment and star ratings of product reviews can forecast firms' stock performance. Ghose *et al.* (2012) mine product reviews from social media and even include them in crowdsourcing methods to estimate the demand for hotels. Christensen *et al.* (2017) demonstrate how customer reviews emerging from online communities can also be used in getting ideas and fostering innovation. Nevertheless, the online brand studies which conduct analyses of the UGC (Burmann and Arnhold, 2009; Burmann, 2010) point out how it is a useful tool for tracing consumer brand image. Being the result of consumers' comments and reviews in virtual settings, this is defined by Barreda and Bilgihan (2013, p. 266) as "brand virtual image" and is considered an online form of communication that marketers need to constantly monitor (Gelb and Sundaraman, 2002). Among the studies that use UGC to investigate consumer brand perception, those of Lee and Bradlow (2011) and Netzer *et al.* (2012) are emblematic since they utilize UGC to explore brand image as a basis underlying a market structure and its internal relationships. Lee and Bradlow (2011) do this by collecting the perceived product attributes from online discussions; Netzer *et al.* (2012) also do the same by exploring the similarity between products through their co-mention brand associations. Both these studies base their analysis on listening to the single voice of the consumer and apply clustering and semantic network techniques to co-occurrences as proxies of brand associations extracted from the UGC through text mining analysis. More recent studies by Ranfagni *et al.* (2016) and Berni *et al.* (2020) go beyond the single voice of the consumer and use text mining technique to trace

from UGC to the brand associations expressing the brand image and from firm-created content (FCC) to brand associations expressing brand identity. In particular, by processing data through the text mining technique, Ranfagni *et al.* (2016) compare personality adjectives of fashion brands that the company communicates with those that consumers perceive, whereas the former correspond to brand association emerging from the FCC, the latter are brand associations resulting from the UGC. Berni *et al.* (2020) investigate company vs consumer brand association matching of a luxury fashion brand (Ferragamo), applying multivariate statistical methods and semantic tools to the co-occurrences generated by text mining. We have been inspired by these studies to develop an analytical approach which provides a measurement of the brand image and brand identity matching by combining text mining with netnography.

*2.4 Branding in food and beverage industry as the context of our analysis*
The product brand plays a primary role in the food and beverage industry: its perception has an impact on consumers' preferences. Studies show how in making choices regarding food (Vranešević and Stančec, 2003) and beverages (Ophuis and Van Trijp, 1995), consumers prefer physical characteristics and are attracted by the perceived quality. Generated by intrinsic visual aspects – i.e. color, appearance, shape, size and structure – and extrinsic elements of the product brand – i.e. country of origin, brand name, nutritional and production information, price and store (Espejel *et al.*, 2007) – the perceived quality filters choices that consumers develop in the prepurchasing moments (Krystallis *et al.*, 2007). An important role in generating the perceived quality is played by the packaging design (Vazquez *et al.*, 2003; Rundh, 2009): by fostering the sensory consumer experience, it can even act as a driving force in the purchasing process. While on the one hand, quality attributes are the basis of brand positioning that many food and beverage companies pursue (Lindgreen *et al.*, 2009), on the other hand, the perceived quality along with brand ownership, that is, the ability to create a strong association between the brand and its values in the consumer's mind (Bartsch *et al.*, 2016), are seen as key drivers of brand equity (Davcik, 2013). Quality attributes combined with values conserved over time fuel brand authenticity (Napoli *et al.*, 2014), which creates a quality perception around quality commitment, perceived heritage and the sincerity of the product. In the food and beverage industry, exploring whether quality-based brand associations making up the brand identity are aligned with consumer brand perceptions is unquestionably useful for guiding companies in reviewing brand communication and fostering brand equity. To date, food and beverage studies do not provide the tools to conduct this analysis. Cillo *et al.* (2019), investigating beer as a product brand, highlight how in addition to brand communication, brand equity is influenced by brand narratives deriving from UGC. This means that being a brand for food as well as beverage products becomes an activity of cocreation that involves consumers. Brand alignment analysis is therefore a necessity and can find its explorative basis in the investigation of UGC. In fact, both food and beverage experiences are increasingly more the object of sharing on the social networks. A demonstration of this is the growing number of consumer-generated postings in terms of images and narrations (Atwal *et al.*, 2019). However, food and beverage studies are limited to the use of UGC mostly for exploring online engagement (Cvijikj and Michahelles, 2013) and food experiences (Chhabra *et al.*, 2013). In these studies, the research techniques applied are netnography and text mining but neither of these are used to make a company vs consumer analysis of the brand. This analysis is instead at the basis of the analytical approach we propose.

## 3. An insight into our methodological approach
Our research approach integrates netnography with text mining. Netnography is a qualitative research method that adapts ethnographic techniques with the analysis of

consumer behavior in online communities. It is a valid instrument for understanding "tastes, desires, relevant symbol systems, and decision-making influences of particular consumers and consumer groups" (Kozinets, 2002, p. 61). Contrary to ethnography, in which data are collected during face-to-face encounters, netnography makes use of the computer-mediated discourse produced by participants interacting in virtual settings. As Kozinets (2002) explains, the netnographer observes consumers by investigating their online conversations and implementing a research process that includes research planning, entrée, data collection and data interpretation steps. He studies consumers in online communities, that is, in interactional contexts (Kretz and de Valck, 2010; Xun and Reynolds 2010), where they converge to discuss issues of common interest. In this way, he gains important information about consumer preferences and behaviors and especially how they may change over time. Conversely, text mining (Hearst, 1999) is a research technique closely linked to the fields of natural language processing (NLP) and computational linguistics which develop and implement computer software programs for the purpose of generating, analyzing and manipulating electronically stored texts (Witten, 2005). It allows for extracting new and previously unknown information from textual data, thus offering far more than simple information retrieval (Hearst, 1999). As illustrated above, researchers have begun to show an interest in the potential of text mining to shed new light on consumer behaviors and brand perceptions. In our research, in an attempt to measure Nespresso brand alignment, we investigated brand narratives as textual data emerging from online communities and from brand communication. In selecting the online communities as in the collecting of textual data, we followed netnographic guidelines. Instead, in order to extract brand associations making up brand image and brand identity from consumer textual data and company textual data, respectively, we applied text mining. More specifically, all the data collected were subjected to text mining procedures identifying co-occurrences conceived as data equivalent to brand associations. By comparing the emerging consumer's vs company's co-occurrences, we developed markers of brand alignment capable of providing companies with useful information for making branding decisions. Following, we give an insight into the phases of our research approach, which include (1) gathering of textual data sources, (2) collection of textual data, (3) data processing: co-occurrence extraction, (4) development of brand alignment measurements and (5) the relative interpretation.

### 3.1 Gathering of textual data sources

We began the process by identifying the sources of the explored company and consumer brand narratives. In doing so, we gave priority to textual data in the English language. For the company textual data, we focused on brand communication drawn from (1) sections related to brand history, business strategies and brand descriptions on the corporate website (www. nestlènespresso.com); (2) sections relating to information on products and customer services on the Nespresso website (www.nespresso.com) and (3) interviews released by chief executive officers (CEOs) and managers of Nespresso in online magazines. As regards customer textual data instead, we focused on the Nespresso blogs and forums which, in compliance with the netnography principles applied in selecting online communities (Kozinets, 2002, 2003), are marked by (1) the well-established blog and forum rating criteria including membership, Alex traffic data, the number of indexed pages and incoming links (Bardzell *et al.*, 2009); (2) research question-relevant topics and (3) the presence of posts and comments on consumer brand experience which, in addition to being descriptively rich, are archived for a relatively long period (at least three years). A total of 110 communities were selected, of which are 65 blogs and 45 forums (see Table A1 in appendix). Being forms of technology that mediate social interactions, Nespresso blogs and forums provided a "window" on consumer perceptions in relation to the brand in an authentic interaction setting. We identified them through a manual

search in the main search engines (Google, Yahoo, Bing) by using the key expressions of "Nespresso forums," "Nespresso blogs" and "Nespresso discussions."

*3.2 Collection of textual data*
Always in accordance with the netnographic guidelines, after having identified the computer-mediated brand narratives in the online communities, we copied and pasted them in a Word file. Doing the same with the company textual data, we created another Word file containing company narratives. All the data collected covered a time frame spanning from April 2008 until September 2019. The total collected words were 64,121 (105 pages) for the company file and 99,020 (145 pages) for the consumer file. All the files were converted into txt format and processed by using T-LAB software, an all-in-one set of linguistic, statistical and graphical tools for text analysis.

*3.3 Data procession: co-occurrence extraction*
Before making a co-occurrence analysis*,* both the textual files were subjected to linguistic normalization and to lemmatization. The linguistic normalization (Salton, 1989) corrects ambiguous words (e.g. typing errors, slang terms, abbreviations), carries out cleaning actions (e.g. the elimination of excess blank spaces, apostrophes and additional spaces after punctuation marks) and converts multi-words into unitary strings (e.g. "in terms of" became "in_terms_if"). Instead, "lemmatization" (Steinback *et al.*, 2000) turns words contained in the textual files into entries corresponding to lemmas. A lemma defines a set of words that have the same lexical root or lexeme and that belong to the same grammatical category (verb, adjective, etc.). Thus, lemmatization acts by transforming plural nouns into the singular form and verb forms into the base form. The resulting lemmas identify a group of words in the language (Kowles and Mohd Don, 2004) and since "each language embodies and perpetuates a particular world view" (Brown and Lenneberg, 1954, p. 454), lemmas can be conceived as articulated components of this view. The co-occurrence analysis, following the normalization and lemmatization made it possible to determine how many times two lemmas were present in the same text paragraph (Doddington, 2002). More specifically, it identified how many times a lemma in the company and consumer files co-occurs with the target lemma "Nespresso." Since the similarity between several terms is greater, the more frequent their co-occurrences in the text, co-occurrences are used in marketing studies as an expression of brand associations (cfr. Berni *et al.*, 2020; Netzer *et al.*, 2012). These are extrapolated from the textual files divided into elementary contexts (hereinafter, ECs). In the T-LAB software, an EC corresponds to a paragraph with a minimum length of 50 characters and a maximum length of 1,000 characters. The ECs making up the company file were 1,030, while there were 1,453 ECs in the consumer file. We excluded from the analysis lemmas (such as "range," "percent," "company," "offer," "product," "market" and "day") co-occurring with "Nespresso" that were neutral, that is, they were void of any specific associative meaning (Ranfagni *et al.*, 2016).

*3.4 Data analysis: development of brand alignment measurement*
The data that T-LAB provided were $N$ (Ai $\rightarrow$ Nespresso) and $N$ (Ai), con $i = 1,2,3...n$.

  $-N$ (Ai $\rightarrow$ Nespresso) is the number of ECs in which the lemma (Ai) co-occurs with the lemma "Nespresso." Since the co-occurring lemmas correspond to brand associations, $N$ (Ai $\rightarrow$ Nespresso) indicates the number of ECs containing brand associations which link Nespresso to Ai.

  $-N$ (Ai) is the number of ECs containing the lemma Ai as a component of the brand experience view.

The difference between $N$ (Ai) and $N$ (Ai $\rightarrow$ Nespresso) determines the value of $N$ (Ai $\nrightarrow$ Nespresso), that is, the number of ECs in which the lemma Ai is used without co-occurring with the lemma "Nespresso." The values of $N$ (Ai $\rightarrow$ Nespresso) and $N$ (Ai $\nrightarrow$ Nespresso) resulting from the company file and the consumer file are indicated with $N$(Ai $\rightarrow$ Nespresso)$_{COMP}$ and $N$(Ai $\nrightarrow$ Nespresso)$_{COMP}$ and $N$(Ai $\rightarrow$ Nespresso)$_{CONS}$ and $N$(Ai $\nrightarrow$ Nespresso)$_{CONS}$, respectively.

By using the value of $N$ (Ai $\rightarrow$ Nespresso), it is possible to determine (Ai $\rightarrow$ Nespresso) Prevalence Rate - (Ai $\rightarrow$ Nespresso)PR. This measures how many times every 100 ECs, the lemma (Ai) co-occurs with the lemma "Nespresso" in the textual file. It follows that (Ai $\rightarrow$ Nespresso)PR$_{COMP}$ and (Ai $\rightarrow$ Nespresso)PR$_{CONS}$ show how many times the lemma (Ai) co-occurs with "Nespresso" every 100 ECs of the company file and the consumer file, respectively. For their calculation, see formulas (1) and (2) in Table 1.

In the same way, by using the value of $N$(Ai $\nrightarrow$ Nespresso), it is possible to determine (Ai $\nrightarrow$ Nespresso)Prevalence Rate – (Ai $\nrightarrow$ Nespresso)PR – that measures how many times every 100 ECs the lemma Ai is used without co-occurring with the lemma "Nespresso" in the textual file. It follows that (Ai $\nrightarrow$ Nespresso)PR$_{COMP}$ and (Ai $\nrightarrow$ Nespresso)PR$_{CONS}$ show how many times the lemma Ai is used without co-occurring with "Nespresso" every 100 ECs of the company file and the consumer file, respectively. For their calculation, see formulas (3) and (4) in Table 1.

Finally, after identifying the $n$ lemmas (Ai) which co-occur with "Nespresso" in both the consumer file and the company file, it is also possible to determine the values of the consumer brand alignment (C$_{ONS}$BA) and the company brand alignment (C$_{OMP}$BA). The C$_{ONS}$BA measures how many times every 100 ECs, the common co-occurring lemmas are contained in the consumer file, while the C$_{OMP}$BA determines how many times every 100 ECs are contained in the company file. For the calculation of C$_{ONS}$BA and the C$_{OMP}$BA, see formulas (5) and (6) in Table 1.

*3.5 Data interpretation*
The results emerging from our research approach can be used to review brand communication based on new branding strategies. Companies can decide to make brand reinforcement and brand revitalization, for example. A brand reinforcement strategy strengthens brand attributes for increasing brand awareness and brand loyalty while also fortifying product associations (Keller, 2003; Fournier, 1998). A revitalization strategy would instead be able to refresh existing brand attributes or identify new ones, thereby generating changes in competitive positioning (Dev and Keller, 2014).

## 4. Results
*4.1 Brand image and brand identity from a co-occurrence analysis*
Table 2 shows (1) the lemmas (Ai) that co-occur with "Nespresso" in the company file and in the consumer file and (2) how many times they co-occur through the values of $[N$ (Ai $\rightarrow$ Nespresso)$_{COMP}]$ and $[N$ (Ai $\rightarrow$ Nespresso)$_{CONS}]$. While the co-occurring lemmas in the company file identify brand associations, the company uses when it makes brand communication, the co-occurring lemmas in the consumer file identify the brand associations consumers use when they speak about the brand. If related with the number of ECs in the respective files, the values of $[N$(Ai $\rightarrow$ Nespresso)$_{COMP}]$ and $[N$(Ai $\rightarrow$ Nespresso)$_{CONS}]$ determine (Ai $\rightarrow$ Nespresso)PR$_{COMP}$ and (Ai $\rightarrow$ Nespresso)PR$_{CONS}$. By analyzing the values of (Ai $\rightarrow$ Nespresso)PR$_{COMP}$ in Table 2, it emerges that the brand associations making up Nespresso's core brand identity are "coffee," "quality," "capsule," "cru," "experience," "machine," "cup" and "farmer." Their values of (Ai $\rightarrow$ Nespresso)PR$_{COMP}$ fluctuate between that of

| Indicators | From the company file | From the consumer file |
|---|---|---|
| $(Ai \to Nespresso)PR$; $(Ai = 1,2,3\ldots n)$ | (1) $(Ai \to Nespresso)PR_{COMP} = \frac{N\,(Ai \to Nespresso)_{COMP}}{ECs(tot)_{COMP}} \times 100$ | (2) $(Ai \to Nespresso)PR_{CONS} = \frac{N\,(Ai \to Nespresso)_{CONS}}{ECs(tot)_{CONS}} \times 100$ |
| $(Ai \nrightarrow Nespresso)PR$; $(Ai = 1,2,3\ldots n)$ | (3) $(Ai \nrightarrow Nespresso)PR_{COMP} = \frac{N\,(Ai \nrightarrow Nespresso)_{COMP}}{ECs(tot)_{COMP}} \times 100$ | (4) $(Ai \nrightarrow Nespresso)PR_{CONS} = \frac{N\,(Ai \nrightarrow Nespresso)_{CONS}}{ECs(tot)_{CONS}} \times 100$ |
| Brand alignment (BA) | (5) $C_{COMP}\,BA = \sum_1^n [(Ai \to Nespresso)PR_{COMP}]$ where $Ai = (1,\,2,\,3,\,\ldots n)$ and $\in [(Ai \to Nespresso)_{COMP} \cap (Ai \to Nespresso)_{CONS}]$ | (6) $C_{CONS}\,BA = \sum_1^n [(Ai \to Nespresso)PR_{CONS}]$ where $Ai = (1,\,2,\,3,\,\ldots n)$ and $\in [(Ai \to Nespresso)_{COMP} \cap (Ai \to Nespresso)_{CONS}]$ |

Table 1.
$(Ai \to Nespresso)PR$,
$(Ai \nrightarrow Nespresso)$ PR
and brand alignment
(BA): formulas for the
calculation

| Lemma (Ai) | | From the company file | | Lemma (Ai) | | From the consumer file | |
|---|---|---|---|---|---|---|---|
| | Lemma (Ai) | $N$ (Ai → Nespresso)$_{COMP}$ | (Ai → Nespresso) PR$_{COM}$ | | Lemma (Ai) | $N$ (Ai → Nespresso)$_{CONS}$ | (Ai → Nespresso) PR$_{CONS}$ |
| $A_1$ | Coffee | 569 | 55.24 | $A_1$ | Coffee | 794 | 54.65 |
| $A_2$ | Quality | 180 | 17.48 | $A_2$ | Machine | 504 | 34.69 |
| $A_3$ | Capsule | 176 | 17.09 | $A_3$ | Capsule | 359 | 24.71 |
| $A_4$ | Cru | 164 | 15.92 | $A_4$ | Espresso | 278 | 19.13 |
| $A_5$ | Experience | 149 | 14.47 | $A_5$ | Cup | 184 | 12.66 |
| $A_6$ | Machine | 139 | 13.50 | $A_6$ | i-Pod | 181 | 12.46 |
| $A_7$ | Cup | 130 | 12.62 | $A_7$ | Taste | 147 | 10.12 |
| $A_8$ | Farmer | 115 | 11.17 | $A_8$ | Time | 143 | 9.84 |
| $A_9$ | Boutique | 112 | 10.87 | $A_9$ | Good | 133 | 9.15 |
| $A_{10}$ | Program | 107 | 10.39 | $A_{10}$ | Quality | 132 | 9.09 |
| $A_{11}$ | Create | 106 | 10.29 | $A_{11}$ | Home | 125 | 8.60 |
| $A_{12}$ | Business | 103 | 10.00 | $A_{12}$ | Experience | 119 | 8.19 |
| $A_{13}$ | Design | 100 | 9.71 | $A_{13}$ | Drink | 114 | 7.85 |
| $A_{14}$ | Club | 99 | 9.61 | $A_{14}$ | System | 109 | 7.50 |
| $A_{15}$ | Member | 90 | 8.74 | $A_{15}$ | Design | 99 | 6.81 |
| $A_{16}$ | Sustainable | 88 | 8.54 | $A_{16}$ | Best | 98 | 6.75 |
| $A_{17}$ | Service | 85 | 8.25 | $A_{17}$ | Love | 98 | 6.75 |
| $A_{18}$ | Taste | 84 | 8.16 | $A_{18}$ | Boutique | 93 | 6.40 |
| $A_{19}$ | Unique | 84 | 8.16 | $A_{19}$ | Great | 91 | 6.26 |
| $A_{20}$ | World | 83 | 8.06 | $A_{20}$ | Store | 82 | 5.64 |
| $A_{21}$ | Recycle | 81 | 7.86 | $A_{21}$ | Different | 80 | 5.51 |
| $A_{22}$ | System | 80 | 7.77 | $A_{22}$ | Recycle | 78 | 5.37 |
| $A_{23}$ | Espresso | 76 | 7.38 | $A_{23}$ | Service | 77 | 5.30 |
| $A_{24}$ | Country | 72 | 6.99 | $A_{24}$ | Easy | 76 | 5.23 |
| $A_{25}$ | Nestlé | 70 | 6.80 | $A_{25}$ | Think | 76 | 5.23 |
| $A_{26}$ | Launch | 69 | 6.70 | $A_{26}$ | Cru | 75 | 5.16 |
| $A_{27}$ | Innovative | 62 | 6.02 | $A_{27}$ | Create | 73 | 5.02 |
| $A_{28}$ | Share | 62 | 6.02 | $A_{28}$ | Enjoy | 73 | 5.02 |
| $A_{29}$ | Expert | 59 | 5.73 | $A_{29}$ | World | 72 | 4.96 |
| $A_{30}$ | Line | 57 | 5.53 | $A_{30}$ | Order | 66 | 4.54 |
| $A_{31}$ | Premium | 55 | 5.34 | $A_{31}$ | Club | 64 | 4.41 |

Table 2.
Values of
(Ai → Nespresso) and
(Ai → Nespresso) PR

($A_{coffee}$ → Nespresso)$PR_{COMP}$ equal to 55.24 and that of ($A_{farmer}$ → Nespresso)$PR_{COMP}$ equal to 11.17. Included among these are ($A_{quality}$ → Nespresso)$PR_{COMP}$ (17.48), ($A_{capsule}$ → Nespresso) $PR_{COMP}$ (17.09), ($A_{cru}$ → Nepresso$PR$)$_{COMP}$ (15.92), ($A_{experience}$ → Nespresso)$PR_{COMP}$ (14.47), ($A_{machine}$ → Nespresso)$PR_{COMP}$ (13.50) and ($A_{cup}$ → Nespresso)$PR_{COMP}$ (12.62). Instead, by analyzing the values of ($Ai$ → Nespresso)$PR_{CONS}$ in Table 2, it turns out that the main brand associations making up the consumer brand perception are "coffee," "machine," "capsule," "expresso," "cup" and "i-pod." Their values of ($Ai$ → Nespresso)$PR_{CONS}$ fluctuate between that of ($A_{coffee}$ → Nespresso)$PR_{CONS}$ equal to 54.65 and that of ($A_{i-pod}$ → Nespresso)$PR_{CONS}$ equal to 12.46. Included among these are the values of ($A_{machine}$ → Nespresso)$PR_{CONS}$ (34.69), ($A_{capsule}$ → Nespresso)$PR_{CONS}$ (24.71), ($A_{espresso}$ → Nepresso)$PR_{CONS}$ (19.13) and ($A_{cup}$ → Nepresso)$PR_{CONS}$ (12.66). It is therefore evident that "coffee," "capsule," "cup" and "machine" are brand associations that form the core brand identity and the brand image. Considering the list of co-occurring lemmas in the consumer file from Table 2, it can be observed how "experience," "cru" and "quality" also make up the consumers' brand perception but not "farmer," which is another main brand association that the company transmits to the market as an expression of excellence and authentic production.

*4.2 The analysis of brand alignment*
From an examination of the data in Table 2, it can be observed how there are 17 lemmas co-occurring with "Nespresso" in both the company file and the consumer file, namely, "boutique," "capsule," "club," "coffee," "cru," "cup," "design," "espresso," "experience," "machine," "quality," "recycle," "service," "taste," "world," "create" and "system." The sum of the relative values of ($Ai$ → Nespresso)$PR_{CONS}$ determines the value of the consumer brand alignment ($C_{ONS}BA$). This is equal to 224.16. The higher the $C_{ONS}BA$, the greater the common co-occurring lemmas in consumer and company narratives and the greater the probability that the brand associations perceived by consumers are aligned with the brand associations communicated by the company. If we compare $C_{ONS}BA$ with $C_{OMP}BA$, obtained by adding the values of ($Ai$ → Nespresso)$PR_{COMP}$ of the 17 common co-occurring lemmas, there is a gap of 10.11. In fact, the value of $C_{OMP}BA$ is equal to 234.27. Since the gap, both positive and negative, between $C_{OMP}BA$ and $C_{ONS}BA$ is indicative of divergences between the values of ($Ai$ → Nespresso)$PR_{COMP}$ and the values of ($Ai$ → Nespresso)$PR_{CONS}$, it could be strategically relevant to trace back to the maximum and minimum divergences determining the values of $\Delta[(Ai → NespressoPR)_{COMP\_CONS}]$. These values are illustrated in Table 3 and express the differences between company and consumers in terms of importance attached to the common brand associations. By exploring these, situations of high divergence are found in the co-occurring lemmas "cru" ($\Delta = 10.76$), "quality" ($\Delta = 8.39$), "experience" ($\Delta = 6.28$), "create" ($\Delta = 5.27$) and "club" ($\Delta = 5.21$), as well as in the lemmas "machine" ($\Delta = -21.19$), "expresso" ($\Delta = -11.75$) and "capsule" ($\Delta = -7.62$). In fact, while "cru," "quality," "experience," "create" and "club" are used much more in brand communication, "machine," "expresso" and "capsule" are found much more frequently in the consumers' narratives. This means that for the company, Nespresso is far more "cru," "quality," "experience," "create" and "club" than it is for consumers, and thus, it is related to a greater extent by the company to the themes of excellence, creativity and sharing. Conversely, for consumers, Nespresso is much more "machine," "expresso" and "capsule" than it is for the company, and thus, consumers relate it to a greater extent to the theme of innovation recognized in Nespresso products. Data in Table 3 show how situations of low divergence characterize the co-occurring lemmas "system" ($\Delta = 0.27$), "coffee" ($\Delta = 0.60$) and "cup" ($\Delta = -0.04$). Both the company and consumers use them to a similar extent in their brand narratives. For the company, Nespresso is associated with the main Nespresso ingredients of "coffee" and "cup" and integrated offers ("system" = machine + capsules) to no less an extent than it is for consumers. An

| Lemma (Ai) | From the company file | | | From the consumer file | | | Lemma (Ai) | Company file vs consumer files | |
| | $N$ (Ai)$_{COMP}$ | $N$ (Ai ↛ Nespresso)$_{COMP}$ | (Ai ↛ Nespresso) PR$_{COMP}$ | $N$ (Ai)$_{CONS}$ | $N$ (Ai ↛ Nespresso)$_{CONS}$ | (Ai ↛ Nespresso) PR$_{CONS}$ | | Δ[(Ai → Nespresso) PR$_{COMP\_CONS}$] | Δ[(Ai ↛ Nespresso) PR$_{COMP\_CONS}$] |
|---|---|---|---|---|---|---|---|---|---|
| $A_1$ –boutique | 125 | 13 | 1.26 | 105 | 12 | 0.83 | $A_1$ –boutique | 4.47 | 0.44 |
| $A_2$ –capsule | 208 | 32 | 3.11 | 427 | 68 | 4.68 | $A_2$ –capsule | −7.62 | −1.57 |
| $A_3$ –club | 111 | 12 | 1.17 | 70 | 6 | 0.41 | $A_3$ –club | 5.21 | 0.75 |
| $A_4$ –coffee | 744 | 175 | 16.99 | 1,042 | 248 | 17.07 | $A_4$ –coffee | 0.60 | −0.08 |
| $A_5$ – cru | 197 | 33 | 3.20 | 88 | 13 | 0.90 | $A_5$ – cru | 10.76 | 2.31 |
| $A_6$ – cup | 170 | 40 | 3.88 | 251 | 67 | 4.61 | $A_6$ – cup | −0.04 | −0.73 |
| $A_7$ –design | 118 | 18 | 1.75 | 126 | 27 | 1.86 | $A_7$ –design | 2.90 | −0.11 |
| $A_8$ –espresso | 114 | 38 | 3.69 | 372 | 94 | 6.47 | $A_8$ –espresso | −11.75 | −2.78 |
| $A_9$ –experience | 177 | 28 | 2.72 | 143 | 24 | 1.65 | $A_9$ –experience | 6.28 | 1.07 |
| $A_{10}$ –machine | 162 | 23 | 2.23 | 64 | 140 | 9.64 | $A_{10}$ –machine | −21.19 | −7.40 |
| $A_{11}$ –quality | 227 | 47 | 4.56 | 165 | 33 | 2.27 | $A_{11}$ –quality | 8.39 | 2.29 |
| $A_{12}$ –recycle | 103 | 22 | 2.14 | 95 | 17 | 1.17 | $A_{12}$ –recycle | 2.50 | 0.97 |
| $A_{13}$ –service | 91 | 6 | 0.58 | 89 | 12 | 0.83 | $A_{13}$ –service | 2.95 | −0.24 |
| $A_{14}$ – taste | 102 | 18 | 1.75 | 200 | 53 | 3.65 | $A_{14}$ – taste | −1.96 | −1.90 |
| $A_{15}$ –world | 93 | 10 | 0.97 | 90 | 18 | 1.24 | $A_{15}$ –world | 3.10 | −0.27 |
| $A_{16}$ – create | 139 | 33 | 3.20 | 94 | 21 | 1.45 | $A_{16}$ – create | 5.27 | 1.76 |
| $A_{17}$ –system | 98 | 18 | 1.75 | 141 | 32 | 2.20 | $A_{17}$ –system | 0.27 | −0.45 |

**Table 3.**
Values of $N$ (Ai), $N$ (Ai ↛ Nespresso), (Ai ↛ Nespresso)PR values of Δ[(Ai → Nespresso)PR and of Δ[(Ai ↛ Nespresso)PR

intermediate divergence between the values of $(Ai \rightarrow Nespresso)PR_{COMP}$ and the corresponding values of $(Ai \rightarrow Nespresso)PR_{CONS}$ is found in the co-occurring lemmas "recyle" ($\Delta = 2.50$), "design" ($\Delta = 2.90$), "service" ($\Delta = 2.95$), "world" ($\Delta = 3.10$) and "boutique" ($\Delta = 4.47$). For company, Nespresso is more "recycle," "design," "service," "world" and "boutique" than it is for consumers who instead associate Nespresso more with "taste" ($\Delta = -1.96$). Therefore, the company identifies Nespresso with the themes of sustainability, design, service, internationalization and store more than consumers who identify Nespresso to a greater extent with the variety of coffee flavors offered in the market.

The data in Table 3 show the values of $[N (Ai \nrightarrow Nespresso)_{COMP}]$ and $[N (Ai \nrightarrow Nespresso)_{CONS}]$ which indicate how many times in the company file and the consumer file, respectively, each of the 17 common co-occurring lemmas is used without co-occurring with "Nespresso." They are determined by subtracting the corresponding values of $[N (Ai)_{COMP}]$ and $[N (Ai)_{CONS}]$ (Table 3) from the values of $N (Ai \rightarrow Nespresso)_{CONS}$ and $N (Ai \rightarrow Nespresso)_{COMP}$ (Table 2). From a comparison between the values $N (Ai \nrightarrow Nespresso)_{COMP}]$ and $[N (Ai \nrightarrow Nespresso)_{CONS}]$, once they are relativized by the number of ECs in the respective files, a negative $\Delta[(Ai \nrightarrow Nespresso)PR_{COMP\_CONS}]$ is observed for the lemmas "machine" ($\Delta = -7.40$), "espresso" ($\Delta = -2.78$), "taste" ($\Delta = -1.90$), "capsule" ($\Delta = -1.57$) and "cup" ($\Delta = -0.73$). By telling their brand stories, consumers use these lemmas more than the company does in its brand communication. Therefore, they more prevalently make up the representation that consumers have of their brand experience (Brown and Lenneberg, 1954). Characterized instead by a positive $\Delta[(Ai \nrightarrow Nespresso)PR_{COMP\_CONS}]$ are the lemmas "quality" ($\Delta = 2.29$), "cru" ($\Delta = 2.31$), "create" ($\Delta = 1.76$) and "experience" ($\Delta = 1.07$), "recycle" ($\Delta = 0.97$) and "club" ($\Delta = 0.75$). These lemmas more prevalently make up the view of the brand experience that the company communicates (Brown and Lenneberg, 1954). They are used more frequently by the company when it speaks about the Nespresso brand than by the consumers when they tell their brand stories. A differential value of $(Ai \nrightarrow Nespresso)PR_{COMP}$ and $(Ai \nrightarrow Nespresso)PR_{CONS}$ close to 0 marks the lemmas "boutique" ($\Delta = 0.44$), "system" ($\Delta = -0.45$), "world" ($\Delta = -0.27$), "service" ($\Delta = -0.24$), "design" ($\Delta = -0.11$) and "coffee" ($\Delta = -0.08$). Both the company and the consumers use them in a similar way in their brand narratives. These lemmas make up to the same extent the representation that consumers and company have of the brand experience.

## 5. Discussion and managerial implications

As an analysis of the result shows the research approach we propose allows for identifying the brand associations making up the brand identity but not the brand image. From an operational point of view, this can lead the company to assess whether to implement a *brand revitalization strategy* (Dev and Keller, 2014; Keller, 1999). In other words, whether to refresh brand communication of the mismatching brand associations, thereby favoring those composing the core brand identity as sources of brand equity to be recaptured. In the case under investigation, "farmer" is a brand association that could be revitalized.

Moreover, our research approach also reveals the brand associations that make up the brand identity as well as the brand image. The value of the $C_{ONS}BA$ measures the brand association matching. For all the common brand associations, it is possible to calculate $(Ai \rightarrow Nespresso)PR_{COMP}$ and $(Ai \rightarrow Nespresso)PR_{CONS}$ and $(Ai \nrightarrow Nespresso)PR_{COMP}$ and $(Ai \nrightarrow NespressoPR)_{CONS}$. By comparing $\Delta[(Ai \rightarrow Nespresso)PR_{COMP\_CONS}]$ with $\Delta[(Ai \nrightarrow Nespresso)PR_{COMP\_CONS}]$, four different situations emerge. For each of these, the company can assess which branding choices are most appropriate for mitigating the misalignment at the level of perceived importance between the company and consumer brand associations (Sjödin and Törn, 2006; Keller, 1998).

The first two situations represented in the brand alignment matrix (Figure 1) are illustrated below:

(1)  $\Delta[(Ai \rightarrow Nespresso)PR_{COMP\_CONS}] > 0$ and $\Delta[(Ai \nrightarrow Nespresso)PR_{COMP\_CONS}] > 0$. If $(Ai \rightarrow Nespresso)PR_{COM} > (Ai \rightarrow Nespresso)PR_{CONS}$, the company associates Nespresso with Ai more than consumers do. And the more $\Delta[(Ai \rightarrow Nespresso)PR_{COMP\_CONS}]$ is higher than 0, the more it is associated. So, if $(Ai \nrightarrow Nespresso)PR_{COMP} > (Ai \nrightarrow Nespresso)PR_{CONS}$ here too, it follows that the company will also use the lemma Ai more than consumers in the brand communication. And the more $\Delta[(Ai \nrightarrow Nespresso)PR_{COMP\_CONS}]$ is higher than 0, the more it is used. The co-occurring lemmas which have values $\Delta[(Ai \rightarrow Nespresso)PR_{COMP\_CONS}] > 0$ and $\Delta[(Ai \nrightarrow NespressoPR)_{COMP\_CONS}] > 0$ are "quality," "cru," "create," "experience," "recycle," "club" and "boutique." Positioned in "space 1" in Figure 1, these are brand associations that compose the brand identity more than the brand image, and the relative lemmas are more frequently found in the representation of the brand experience that the company communicates than the one narrated by consumers.

(2)  $\Delta[(Ai \rightarrow Nespresso)PR_{COMP\_CONS}] > 0$ and $\Delta[(Ai \nrightarrow Nespresso)PR_{COMP\_CONS}] < 0$. Also in this situation, the company correlates Ai to Nespresso more than consumers. But being $(Ai \nrightarrow Nespresso)PR_{COMP} < (Ai \nrightarrow Nespresso)PR_{CONS}$, Ai corresponds to a lemma that consumers resort to more frequently than the company when speaking about Nespresso. The more $\Delta[(Ai \nrightarrow Nespresso)PR_{COMP\_CONS}]$ is lower than 0, the more it is resorted to. The co-occurring lemmas which have values of $\Delta[(Ai \rightarrow Nespresso)PR_{COMP\_CONS}] > 0$ and $\Delta[(Ai \nrightarrow Nespresso)PR_{COMP\_CONS}] < 0$ are "design," "service," "world," "system" and "coffee." Positioned in "space 4" in Figure 1, they identify brand associations which form the brand identity more than the brand image; however, the relative lemmas are found more frequently in the view of the brand experience narrated by consumers.

In terms of managerial implications, after acknowledging that there are brand associations, the perception of which has to be strengthened in the consumer's mind, the company can decide to implement a *brand reinforcement strategy* (Keller, 2003; Fournier, 1998) favoring those brand associations which in spaces 4 and 1 have (1) the highest values of $(Ai \rightarrow Nespresso)PR_{COMP}$ and (2) the highest values of $\Delta[(Ai \rightarrow Nespresso)PR_{COMP\_CONS}]$. Said brand associations are a source of brand equity making up the core brand identity (Ghodeswar, 2008) and are used far more by the company in brand communication than by the consumers in brand narratives. In the case under investigation, they are "quality," "experience" and "cru." In applying a reinforcement strategy with communication actions that consistently convey the meaning of the brand to consumers in terms of brand image (Woodside *et al.*, 2008), the company could consider acting first on the brand associations that are positioned in space 4 and that comply with conditions (1) and (2). These may be easier to reinforce than the brand associations in space 1 as despite the high values of $\Delta[(Ai \rightarrow Nespresso)PR_{COMP\_CONS}]$, the relative lemmas are a strong component of the representation that consumers have of the brand experience (Escalas, 2004).

The other two situations in the brand alignment matrix (Figure 1) are described below:

(3)  $\Delta[(Ai \rightarrow Nespresso)PR_{COMP\_CONS}] < 0$ and $\Delta[(Ai \nrightarrow Nespresso)PR_{COMP\_CONS}] < 0$. If $(Ai \rightarrow Nespresso)PR_{CONS} > (Ai \rightarrow Nespresso)PR_{COMP}$, consumers associate Nespresso with Ai more than the company does. And the more $\Delta[(Ai \rightarrow Nespresso)PR_{COMP\_CONS}]$ is lower than 0, the more it is associated. So, if $(Ai \nrightarrow Nespresso)PR_{CONS} > (Ai \nrightarrow Nespresso)PR_{COMP}$ here too, it follows that consumers also use the lemma Ai more in their narratives. The more $\Delta[(Ai \nrightarrow Nespresso)PR_{COMP\_CONS}]$ is
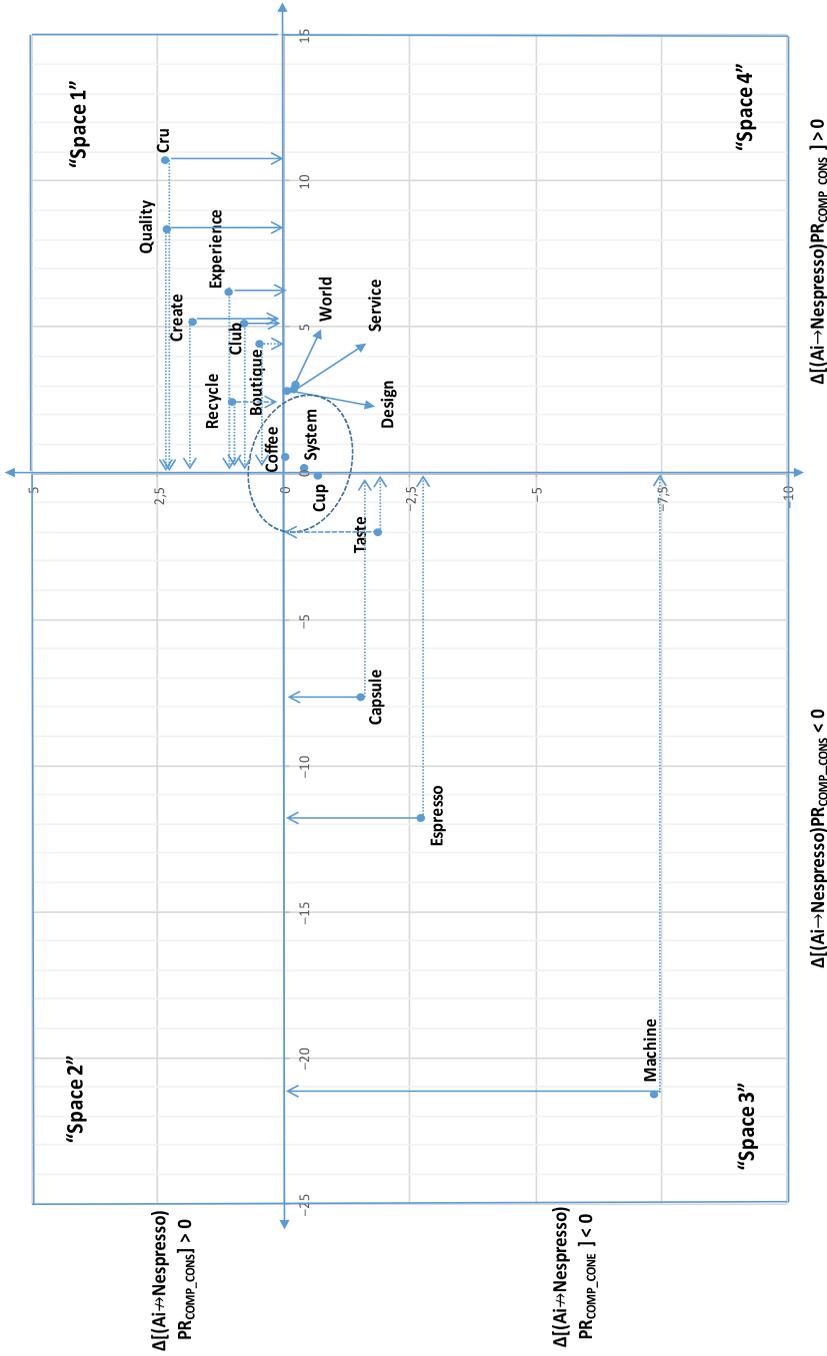
Figure 1.
Brand alignment
matrix

lower than 0, the more it is used. The co-occurring lemmas that have values of $\Delta[(Ai \rightarrow \text{Nespresso})PR_{COMP\_CONS}] < 0$ and $\Delta[(Ai \nrightarrow \text{Nespresso})PR_{COMP\_CONS}] < 0$ are "machine," "espresso," "capsule," "taste" and "cup." Positioned in "space 3" in Figure 1, these are brand associations that make up the brand image more than the brand identity, and the relative lemmas are more frequently found in the representation of the brand experience that the consumers narrate than the one communicated by the company.

(4) $\Delta[(Ai \rightarrow \text{Nespresso})PR_{COMP\_CONS}] < 0$ and $\Delta[(Ai \nrightarrow \text{Nespresso})PR_{COMP\_CONS}] > 0$. Also in this situation, consumers correlate Ai to Nespresso more than the company. But the lemma Ai corresponds to a lemma the company mentions more frequently than consumers. The co-occurring lemmas in "space 2" in Figure 1 have values of $\Delta[(Ai \rightarrow \text{Nespresso})PR_{COMP\_CONS}] < 0$ and $\Delta[(Ai \nrightarrow \text{Nespresso})PR_{COMP\_CONS}] > 0$. They identify brand associations that form the brand image more than the brand identity; however, the relative lemmas are found more frequently in the view of the brand experience that the company transfers to the market. Our analysis did not detect any brand associations falling within this space.

In terms of managerial implications, the company may decide not to intervene on those brand associations in spaces 2 and 3 which, in addition to (a) having a value $\Delta[(Ai \rightarrow \text{Nespresso})PR_{COMP\_CONS}] < 0$, (b) they are also brand associations that make up the core brand identity. Standing out among these are "machine," "expresso" and "capsule." The value $\Delta[(Ai \rightarrow \text{Nespresso})PR_{COMP\_CONS}] < 0$ is positive, thus demonstrating the company's ability to create a strong perception in the consumer's mind (Fournier, 1998). Instead, other brand associations like "taste" in spaces 2 and 3 which comply with the condition (1) but not (2) must be critically assessed. Also in this situation, the company could decide to apply a *revitalizing strategy* (Dev and Keller, 2014; Keller, 1999). This decision, which is more consumer pull than company push, entails a revision of the set of core brand associations underlying the brand's competitive positioning. It implies that new sources of brand equity are established (Thomas and Kohli, 2009). In its implementation, the company could consider starting from a communication refresh of the brand associations in space 2 since the relative lemmas strongly connote the representation of the brand experience that the company transfers to the market.

## 6. Conclusions and future research
Our analytical approach allows us not only to identify the brand associations the company communicates and the brand associations consumers perceive but also to establish the $C_{ONS}BA$ as a brand alignment measurement that can also be compared with $C_{OMP}BA$ to explore brand association divergences. Determining brand alignment, it bridges a research gap found in both online and offline brand studies (Sjödin and Törn, 2006; Malär *et al.*, 2012; Lee and Bradlow, 2011; Netzer *et al.*, 2012). From a theoretical point of view, therefore, it is an analytical tool that contributes to enriching branding studies. It does this by adopting innovative analytical bases, in other words, it does not use traditional methods of qualitative research to trace back to the brand association network (John *et al.*, 2006) but instead investigates the UGC by exploiting text mining (Ranfagni *et al.*, 2016; Berni *et al.*, 2020) based on netnographic guidelines. In practical terms, our approach meets a need perceived among managers (Chen and Chang, 2020; Hu and Trivedi, 2020). Nowadays, in addition to being the prerequisite for feeding brand equity, brand alignment is also considered a condition that is becoming increasingly more important to monitor. Indeed, while on the one hand, digitalization fosters new business opportunities for companies, on the other hand, it generates risks, including the possible loss of control over brand

communication mainly as a result of consumers who play an active role in narrating and making brand stories go viral on the social media sites. Practitioners can therefore measure brand alignment to understand how to successfully coordinate consumer and company brand communication (Gensler *et al.*, 2013). More specifically, they can use our methodological approach for (1) making brand communication more effective in increasing $C_{ONS}BA$ and reducing its divergence with $C_{OMP}BA$ and (2) guiding the company in evaluating the possible brand repositioning choices. Nor can its use to investigate brand associations from a competitive perspective be ruled out.

Despite these benefits, our study is not without limitations. We have considered only one case study even if very emblematic, especially in the food and beverage industry. We are fully aware that it is necessary to explore more study cases in order to highlight potentials and shortcomings of our analytical tool. Furthermore, we have limited ourselves to investigating online communities with the exclusion of other social settings (i.e. Facebook and Twitter). In the light of all this, there are possible future study paths we could follow. We believe the approach illustrated should (1) be tested with UGC emerging not only from online communities but also from social media sites, (2) be integrated with a videography analysis of brand pictures that consumers post on social platforms such as Instagram to exchange multisource information, (3) be applied to more brands to conduct an analysis of their competitive positioning that could highlight the brand associations which, being perceived as unique, act as sources of the brand differentiating power and (4) combine its results with structural company data and brand performance indicators. These and further developments are indispensable for providing methodological solutions like drivers of a new framework of analysis for brand management applied to the web. Their development becomes even more relevant today as contingent situations make it increasingly normal for most current consumers to have parallel experiences on both the online and offline markets. Finding new ways to explore them is therefore a challenging objective for many academic researchers.

## References

Aaker, D.A. (1991), *Managing Brand Equity*, Free Press, New York.

Aaker, D. (2003), "The power of the branded differentiator", *MIT Sloan Management Review*, Vol. 45 No. 1, pp. 83-87.

Agariya, A.K., Johari, A., Sharma, H.K., Chandraul, U.N. and Singh, D. (2012), "The role of packaging in brand communication", *International Journal of Scientific Engineering and Research*, Vol. 3 No. 2, pp. 1-13.

Archak, N., Ghose, A. and Ipeirotis, P.G. (2011), "Deriving the pricing power of product features by mining consumer reviews", *Management Science*, Vol. 57 No. 8, pp. 1485-1509.

Atwal, G., Bryson, D. and Tavilla, V. (2019), "Posting photos of luxury cuisine online: an exploratory study", *British Food Journal*, Vol. 121 No. 2, pp. 454-466.

Babin, L.A. and Burns, A.C. (1997), "Effects of print ad pictures and copy containing instructions to imagine on mental imagery that mediates attitudes", *Journal of Advertising*, Vol. 26 No. 3, pp. 33-44.

Baldus, B.J., Voorhees, C. and Calantone, R. (2015), "Online brand community engagement: scale development and validation", *Journal of Business Research*, Vol. 68 No. 5, pp. 978-985.

Bardzell, S., Bardzell, J. and Pace, T. (2009), "Understanding affective interaction: emotion, engagement, and internet videos", *2009 3rd International Conference on Affective Computing and Intelligent Interaction and Workshops*, pp. 1-8. IEEE, doi: 10.1109/ACII.2009.5349551.

Barreda, A. and Bilgihan, A. (2013), "An analysis of user-generated content for hotel experiences", *Journal of Hospitality and Tourism Technology*, Vol. 4 No. 3, pp. 263-280.

Bartsch, F., Diamantopoulos, A., Paparoidamis, N.G. and Chumpitaz, R. (2016), "Global brand ownership: the mediating roles of consumer attitudes and brand identification", *Journal of Business Research*, Vol. 69 No. 9, pp. 3629-3635.

Berni, R., Nikiforova, N.D. and Ranfagni, S. (2020), "An integrated approach to estimate brand association matching and strength in virtual settings", *Journal of Global Fashion Marketing*, Vol. 11 No. 2, pp. 117-136.

Brown, R.W. and Lenneberg, E.H. (1954), "A study in language and cognition", *The Journal of Abnormal and Social Psychology*, Vol. 49 No. 3, pp. 454-462.

Burmann, C. (2010), "A call for 'user-generated branding'", *Journal of Brand Management*, Vol. 18 No. 1, pp. 1-4.

Burmann, C. and Arnhold, U. (2009), *User Generated Branding: State of the Art of Research*, Lit, Münster, Germany.

Chen, S.Y. and Chang, Y.M. (2020), "The impacts of real competition and virtual competition in digital game-based learning", *Computers in Human Behavior*, Vol. 104, pp. 1-14.

Chhabra, D., Lee, W., Zhao, S. and Scott, K. (2013), "Marketing of ethnic food experiences: authentication analysis of Indian cuisine abroad", *Journal of Heritage Tourism*, Vol. 8 Nos 2-3, pp. 145-157.

Christensen, K., Nørskov, S., Frederiksen, L. and Scholderer, J. (2017), "In search of new product ideas: identifying ideas in online communities by machine learning and text mining", *Creativity and Innovation Management*, Vol. 26 No. 1, pp. 17-30.

Cillo, V., Gavinelli, L., Ceruti, F., Perano, M. and Solima, L. (2019), "A sensory perspective in the Italian beer market", *British Food Journal*, Vol. 121 No. 9, pp. 2036-2051.

Cvijikj, I.P. and Michahelles, F. (2013), "Online engagement factors on Facebook brand pages", *Social Network Analysis and Mining*, Vol. 3 No. 4, pp. 843-861.

Czellar, S. (2003), "Consumer attitude toward brand extensions: an integrative model and research propositions", *International Journal of Research in Marketing*, Vol. 20 No. 1, pp. 97-115.

Dahlén, M., Lange, F., Sjödin, H. and Törn, F. (2005), "Effects of ad-brand incongruence", *Journal of Current Issues and Research in Advertising*, Vol. 27 No. 2, pp. 1-12.

Davcik, N.S. (2013), "An empirical investigation of brand equity: drivers and their consequences", *British Food Journal*, Vol. 115 No. 9, pp. 1342-1360.

Dev, C.S. and Keller, K.L. (2014), "Brand revitalization", *Cornell Hospitality Quarterly*, Vol. 55 No. 4, pp. 333-341.

Doddington, G. (2002), "Automatic evaluation of machine translation quality using n-gram co-occurrence statistics", *Proceedings of the Second International Conference on Human Language Technology Research*, pp. 138-145.

Escalas, J.E. (2004), "Narrative processing: building consumer connections to brands", *Journal of Consumer Psychology*, Vol. 14 Nos 1-2, pp. 168-180.

Espejel, J., Fandos, C. and Flavián, C. (2007), "The role of intrinsic and extrinsic quality attributes on consumer behaviour for traditional food products", *Managing Service Quality: An International Journal*, Vol. 17 No. 6, pp. 681-701.

Farquhar, P.H. (1989), "Managing brand equity", *Marketing Research*, Vol. 1 No. 3, pp. 24-33.

Fodor, J.A. (1981), *Representations: Philosophical Essays on the Foundations of Cognitive Science*, Harvester Press, Brighton, pp. 225-257.

Fournier, S. (1998), "Consumers and their brands: developing relationship theory in consumer research", *Journal of Consumer Research*, Vol. 24 No. 4, pp. 343-373.

Gelb, B.D. and Sundaram, S. (2002), "Adapting to 'word of mouse'", *Business Horizons*, Vol. 45 No. 4, pp. 21-25.

Gensler, S., Völckner, F., Liu-Thompkins, Y. and Wiertz, C. (2013), "Managing brands in the social media environment", *Journal of Interactive Marketing*, Vol. 27 No. 4, pp. 242-256.

Ghodeswar, B.M. (2008), "Building brand identity in competitive markets: a conceptual model", *The Journal of Product and Brand Management*, Vol. 17 No. 1, pp. 4-12.

Ghose, A., Ipeirotis, P.G. and Li, B. (2012), "Designing ranking systems for hotels on travel search engines by mining user-generated and crowdsourced content", *Marketing Science*, Vol. 31 No. 3, pp. 493-520.

Grime, I., Diamantopoulos, A. and Smith, G. (2002), "Consumer evaluations of extensions and their effects on the core brand", *European Journal of Marketing*, Vol. 36 Nos 11-12, pp. 1415-1438.

Gwinner, K.P. and Eaton, J. (1999), "Building brand image through event sponsorship: the role of image transfer", *Journal of Advertising*, Vol. 28 No. 4, pp. 47-57.

Hearst, M.A. (1999), "Untangling text data mining", *Proceedings of the 37th Annual Meeting of the Association for Computational Linguistics on Computational Linguistics*, Association for Computational Linguistics, pp. 3-10, doi: 10.3115/1034678.1034679.

Hennig-Thurau, T., Malthouse, E.C., Friege, C., Gensler, S., Lobschat, L., Rangaswamy, A. and Skiera, B. (2010), "The impact of new media on customer relationships", *Journal of Service Research*, Vol. 13 No. 3, pp. 311-330.

Hu, F. and Trivedi, R.H. (2020), "Mapping hotel brand positioning and competitive landscapes by text-mining user-generated content", *International Journal of Hospitality Management*, Vol. 84 No. 1, pp. 1-13.

John, D.R., Loken, B., Kim, K. and Monga, A.B. (2006), "Brand concept maps: a methodology for identifying brand association networks", *Journal of Marketing Research*, Vol. 43 No. 4, pp. 549-563.

Keller, K.L. (1993), "Conceptualizing, measuring, and managing customer-based brand equity", *Journal of Marketing*, Vol. 57 No. 1, pp. 1-22.

Keller, K.L. (1998), *Strategic Brand Management: Building, Measuring, and Managing Brand, Equity*, Prentice-Hall, Upper Saddle River, NJ.

Keller, K.L. (1999), "Managing brands for the long run: brand reinforcement and revitalization strategies", *California Management Review*, Vol. 41 No. 3, pp. 102-124.

Keller, K.L. (2003), "Brand synthesis: the multidimensionality of brand knowledge", *Journal of Consumer Research*, Vol. 29 No. 4, pp. 595-600.

Knowles, G. and Don, Z.M. (2004), "The notion of a 'lemma': headwords, roots and lexical sets", *International Journal of Corpus Linguistics*, Vol. 9 No. 1, pp. 69-81.

Kozinets, R.V. (2002), "The field behind the screen: using netnography for marketing research in online communities", *Journal of Marketing Research*, Vol. 39 No. 1, pp. 61-72.

Kretz, G. and de Valck, K. (2010), "'Pixelize me!': digital storytelling and the creation of archetypal myths through explicit and implicit self-brand association in fashion and luxury blogs", *Research in Consumer Behavior*, Vol. 12, pp. 313-329.

Krystallis, A., Chryssochoidis, G. and Scholderer, J. (2007), "Consumer-perceived quality in 'traditional'food chains: the case of the Greek meat supply chain", *Appetite*, Vol. 48 No. 1, pp. 54-68.

Kudeshia, C. and Kumar, A. (2017), "Social eWOM: does it affect the brand attitude and purchase intention of brands?", *Management Research Review*, Vol. 40 No. 3, pp. 310-330.

Kwon, W.S. and Lennon, S.J. (2009), "What induces online loyalty? Online versus offline brand images", *Journal of Business Research*, Vol. 62 No. 5, pp. 557-564.

Lee, T.Y. and Bradlow, E.T. (2011), "Automated marketing research using online customer reviews", *Journal of Marketing Research*, Vol. 48 No. 5, pp. 881-894.

Lindgreen, A., Hingley, M., Lee, C.W. and Liao, C.S. (2009), "The effects of consumer preferences and perceptions of Chinese tea beverages on brand positioning strategies", *British Food Journal*, Vol. 111 No. 1, pp. 80-96.

MacInnis, D.J. and Price, L.L. (1987), "The role of imagery in information processing: review and extensions", *Journal of Consumer Research*, Vol. 13 No. 4, pp. 473-491.

Malär, L., Nyffenegger, B., Krohmer, H. and Hoyer, W.D. (2012), "Implementing an intended brand personality: a dyadic perspective", *Journal of the Academy of Marketing Science*, Vol. 40 No. 5, pp. 728-744.

Matzler, K., Bailom, F., Friedrich von den Eichen, S. and Kohler, T. (2013), "Business model innovation: coffee triumphs for Nespresso", *Journal of Business Strategy*, Vol. 34 No. 2, pp. 30-37.

Meenaghan, T. (1995), "The role of advertising in brand image development", *The Journal of Product and Brand Management*, Vol. 4 No. 4, pp. 23-34.

Miller, D.W. and Marks, L.J. (1997), "The effects of imagery-evoking radio advertising strategies on affective responses", *Psychology and Marketing*, Vol. 14 No. 4, pp. 337-360.

Miller, D.W., Hadjimarcou, J. and Miciak, A. (2000), "A scale for measuring advertisement-evoked mental imagery", *Journal of Marketing Communications*, Vol. 6 No. 1, pp. 1-20.

Mordor Intelligence (2018), "Coffee market - growth, trends and forecasts (2019 - 2024)", available at: https://www.mordorintelligence.com/industry-reports/coffee-market (accessed 19 November 2019).

Morgan-Thomas, A. and Veloutsou, C. (2013), "Beyond technology acceptance: brand relationships and online brand experience", *Journal of Business Research*, Vol. 66 No. 1, pp. 21-27.

Nandan, S. (2005), "An exploration of the brand identity–brand image linkage: a communications perspective", *Journal of Brand Management*, Vol. 12 No. 4, pp. 264-278.

Napoli, J., Dickinson, S.J., Beverland, M.B. and Farrelly, F. (2014), "Measuring consumer-based brand authenticity", *Journal of Business Research*, Vol. 67 No. 6, pp. 1090-1098.

Netzer, O., Feldman, R., Goldenberg, J. and Fresko, M. (2012), "Mine your own business: market-structure surveillance through text mining", *Marketing Science*, Vol. 31 No. 3, pp. 521-543.

Ophuis, P.A.O. and Van Trijp, H.C. (1995), "Perceived quality: a market driven and consumer oriented approach", *Food Quality and Preference*, Vol. 6 No. 3, pp. 177-183.

Presi, C., Saridakis, C. and Hartmans, S. (2014), "User-generated content behaviour of the dissatisfied service customer", *European Journal of Marketing*, Vol. 48 Nos 9-10, pp. 1600-1625.

Ramaswamy, V. and Ozcan, K. (2016), "Brand value co-creation in a digitalized world: an integrative framework and research implications", *International Journal of Research in Marketing*, Vol. 33 No. 1, pp. 93-106.

Ranfagni, S., Camiciottoli, B.C. and Faraoni, M. (2016), "How to measure alignment in perceptions of brand personality within online communities: interdisciplinary insights", *Journal of Interactive Marketing*, Vol. 35, pp. 70-85.

Roy, D. and Banerjee, S. (2008), "CARE-ing strategy for integration of brand identity with brand image", *International Journal of Commerce and Management*, Vol. 17 Nos 1-2, pp. 140-148.

Rundh, B. (2009), "Packaging design: creating competitive advantage with product packaging", *British Food Journal*, Vol. 111 No. 9, pp. 988-1002.

Salton, G. (1989), *Automatic Text Processing: The Transformation, Analysis, and Retrieval of Information by Computer*, Addison-Wesley, Reading, Massachusetts.

Schoormans, J.P.L. and Robben, H.S.J. (1997), "The Effect of new package design on product attention, categorization and evaluation", *Journal of Economic Psychology*, Vol. 18 Nos 2-3, pp. 271-87.

Sjödin, H. and Törn, F. (2006), "When communication challenges brand associations: a framework for understanding consumer responses to brand image incongruity", *Journal of Consumer Behaviour: International Research and Review*, Vol. 5 No. 1, pp. 32-42.

Steinbach, M., Karypis, G. and Kumar, V. (2000), "A comparison of document clustering techniques", *KDD Workshop on Text Mining*, Vol. 400 No. 1, pp. 525-526.

Supphellen, M. (2000), "Understanding core brand equity: guidelines for in-depth elicitation of brand associations", *International Journal of Market Research*, Vol. 42 No. 3, pp. 1-14.

Thomas, S. and Kohli, C. (2009), "A brand is forever! A framework for revitalizing declining and dead brands", *Business Horizons*, Vol. 52 No. 4, pp. 377-386.

Tirunillai, S. and Tellis, G.J. (2012), "Does chatter really matter? Dynamics of user-generated content and stock performance", *Marketing Science*, Vol. 31 No. 2, pp. 198-215.

Vazquez, D., Bruce, M. and Studd, R. (2003), "A case study exploring the packaging design management process within a UK food retailer", *British Food Journal*, Vol. 105 No. 9, pp. 602-617.

Vraneševic, T. and Stančec, R. (2003), "The effect of the brand on perceived quality of food products", *British Food Journal*, Vol. 105 No. 11, pp. 811-825.

Witten, I.H. (2005), "Text mining", in Singh, M.P. (Ed.), *Practical Handbook of Internet Computing*, Chapman & Hall/CRC Press, Boca Raton, Florida.

Woodside, A.G., Sood, S. and Miller, K.E. (2008), "When consumers and brands talk: storytelling theory and research in psychology and marketing", *Psychology and Marketing*, Vol. 25 No. 2, pp. 97-145.

Xun, J. and Reynolds, J. (2010), "Applying netnography to market research: the case of the online forum", *Journal of Targeting, Measurement and Analysis for Marketing*, Vol. 18 No. 1, pp. 17-31.

Yuille, J.C. and Catchpole, M.J. (1977), "The role of imagery in models of cognition", *Journal of Mental Imagery*, Vol. 1 No. 1, pp. 171-180.

**Corresponding author**

Lamberto Zollo can be contacted at: lamberto.zollo@unifi.it

Appendix

*BLOGS*
http://www.hotandchilli.com/Nespresso
http://www.chefdruck.com
http://www.cafeliegeois.us/blogs/nespresso
http://www.coffeegeek.com
https://www.comunicaffe.it/
http://www.dearcoffeeiloveyou.com
http://www.dailycoffeenews.com/tag/blogs/
http://www.idafrosk.blogspot.it
http://www.honeynfizz.blogspot.it
http://www.coffeecrew.com
http://www.shape.com/blogs
http://www.coffeeblog.co.uk
http://www.perfectdailygrind.com
http://www.mycoffeecapsules.co.nz/blog
http://www.thegoodblog.com.au
http://www.blog.seattlecoffeegear.com/nespresso
http://www.blog.kitchenkapers.biz
http://www.hilinecoffee.com/blogs/cafe
http://www.coffereview.com
http://www.pactcoffee.com/blog/
http://www.thecoffeeconcierge.net/blog/
http://www.site.google.com/nespressogmx/nespresso-consumer
http://www.baristahustle.com/blog/
htttp://www.coffeestylish.com
http//www.sprudge.com
http//www.greenbiz.com/blog
http://www.thewaytocoffee.com/specialtycoffeeblog
http://www.jimseven.com
http://www.spudge.com
http://www.blogs.wsj.com
http://www.thecoffeegrapher.com
http://www.hgtv.ca/blog/mnespresso
https://www.ilcaffeespressoitaliano.com/caffe-con-gli-esperti/
https://ciboserio.it/blog-2/
https://thecoffeevine.com/blog/

*FORUMS*
http://www.coffeegeek.com/forums
https://www.home-barista.com/forums/
https://coffeeforums.co.uk/
https://coffeesnobs.com.au/
https://coffeeforum.org.au/
https://beanbox.com/the-perfect-cup-coffee-forum
https://www.reddit.com/r/Coffee/comments/502wmb/coffee_forums/
https://www.ilcaffeespressoitaliano.com/tag/forum-caffe/
https://accademiafumolento.forumfree.it/
https://thecoffeevine.com/reviews/cafes/poland/warsaw/forum-coffee-warsaw-pl/
http://www.coffeereview.com
https://forum.coffee/
https://www.facebook.com/pakistancoffeeforum/
http://www.brandingforum-org/news/nespresso
http://www.singleservecoffeeforums.com

**Table A1.**
A set of Nespresso
blogs and forums used
as sources of consumer
textual data