

A Holistic Perspective on Brand Equity Measurement Methods

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Abstract

Managers are currently struggling to evaluate brand equity in a holistic manner. As brand equity is based not only on the customer mindset, but also on the market and financial performance of the brand, it should be evaluated from both perspectives. In order to assess brand health and to monetize the advantages generated by brand equity, it is necessary to analyze the brand value chain, the series of processes through which the brand generates value. Starting from Keller's (2013) classification of brand equity measurement methods (BEMMs), this article analyzes modern BEMMs from the triple perspective of the brand value chain: the customer mindset, brand market performance and holistic brand value. For each method, we explain its mechanism, advantages and disadvantages, implementation, as well as its usefulness and various applications in contemporary contexts, by means of a recent literature review. We synthesize this comprehensive classification of BEMMs in a convenient managerial summary. Next, we emphasize and exemplify the complementarity of various BEMMs in assessing brand health. The managerial suggestions underline the importance of selecting an optimal combination of BEMMs, in accordance to the particular research context and objectives, by considering the general advantages and limits of each category of BEMMs and of each method in particular.

Keywords: Brand Equity Measurement; Customer Mindset; Brand Market Performance; Holistic Brand Value; Brand Valuation; Qualitative Techniques; Quantitative Techniques



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Introduction

Brand equity is the value added by a particular brand to a product as a result of marketing investments (Farquhar, 1989; Tuominen, 1999), value which exceeds the functional characteristics of the product (Mothersbaugh et al., 2020). Thus, solid brand equity is a prerequisite for building a strong brand.

Brand equity provides value from a dual perspective: for the company that owns the brand and for the brand's customers (Aaker, 2012). However, company brand equity is dependent on customer brand equity. Consequently, we can say that the brand is owned simultaneously by companies and by consumers. If the brand offers insufficient customer value, this will result in diminished company benefits from using the brand. Therefore, it is essential to understand the process through which the brand creates customer and company value to identify the sources of brand equity. Literature proposes three distinct views on brand equity, from a consumer, organizational and financial perspective. Thus, on the one hand, brand equity is the result of consumers' brand evaluation process (Keller, 2013). From an organizational perspective, brand equity results from the market benefits obtained by the company through the use of the brand (Kapferer, 2012). From a financial perspective, brand equity is the equivalent of the benefits that can be obtained from brand trading on financial markets (Mizik & Jacobson, 2008; Mizik, 2014; Isberg & Pitta, 2013).

The brand value chain explains the process through which marketing program investments are reflected in the customer mindset, which will further influence brand market performance and financial performance (fig.1; Keller & Lehmann, 2003). By understanding the stages and the cyclicity of the process through which marketing investments create value, managers can optimize their investments and marketing programs. By regulating the value creation process, brand equity will be maximized from the dual perspective of consumers and the organization.

This article examines the main brand equity measurement methods (BEMMs), adopting a holistic view on the process of generating brand value. Starting from the value stages of the brand value chain (Keller & Lehmann, 2003) and from the derived, original classification of brand equity sources (Keller, 2013; Keller & Brexendorf, 2019), we review, explain and exemplify the main practical and modern methods of measuring the customer mindset, brand performance and the holistic brand value. Each type of BEMM describes a certain perspective on brand equity. Each BEMM is appropriate in

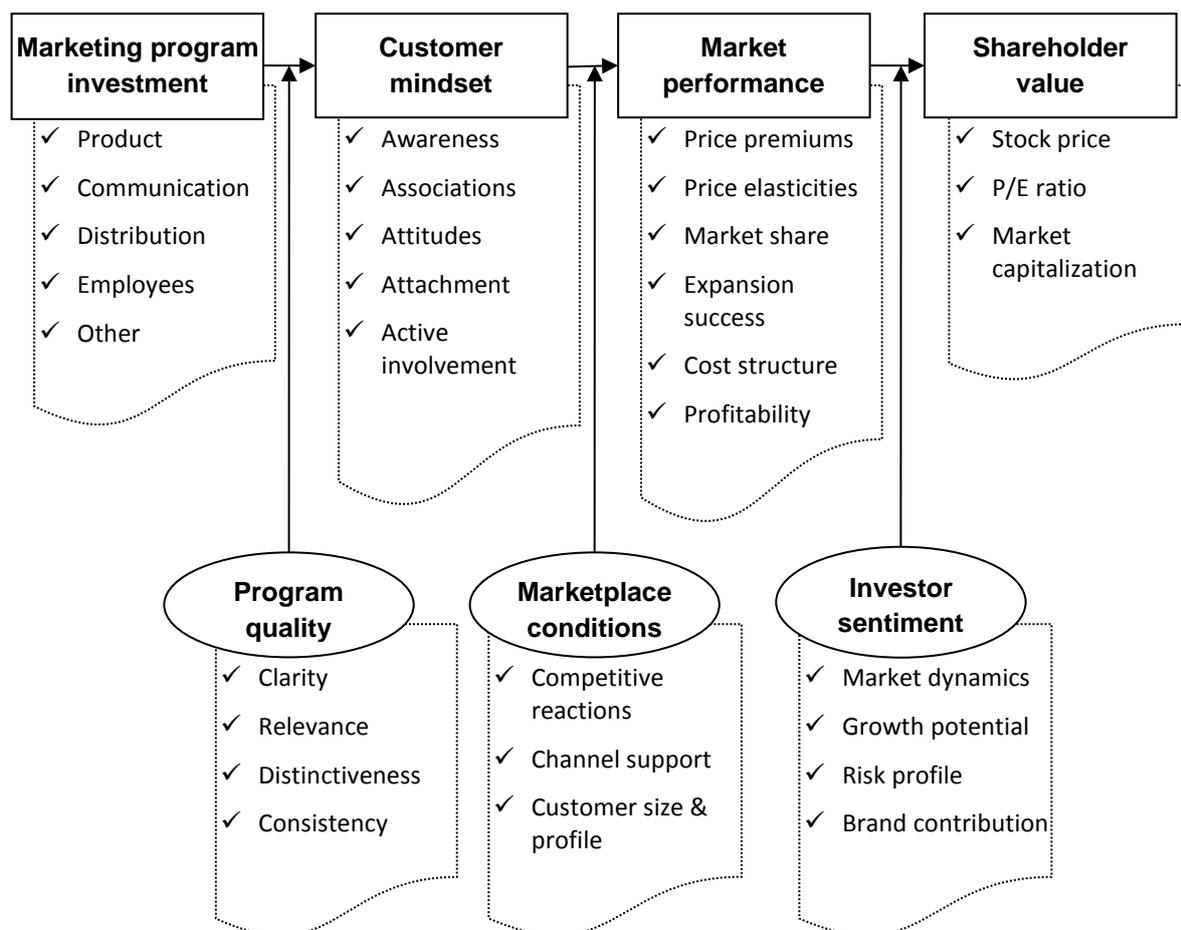
certain contexts and has its own practical limitations, so selecting the adequate BEMMs can be challenging.

The vast majority of marketers and managers agree that after defining a research problem, it is useful to analyze and select from various qualitative and quantitative methods (Dzwigol, 2020). However, there are numerous possible ways of combining BEMMs to solve a marketing research objective. Marketing and consumer research are continuously remodeled by new AI technologies and by interdisciplinary research, which marks the urgency for marketers to adapt from classical methods to modern ones (Quach et al., 2019). Moreover, managers' understanding of the classification, theoretical role and practical implementation of BEMMs is limited by method complexity, time constraints and the manager's specific background and position (e.g., brand manager, marketing officer, managing director, CEO).

Not only managers, but also future employees - represented by graduate and doctoral students - might lack structured educational programs in regard to qualitative research methods in marketing (Petrescu & Lauer, 2017) Therefore, this article provides an updated and concise classification of the main BEMMs, as well as a managerial guide for selecting the optimal BEMMs, in accordance with specific marketing objectives and to the contemporary and evolving external market context.

Figure 1

Brand value chain (Keller & Lehmann, 2003; Keller, 2013)



Measuring The Customer Mindset

The customer mindset consists of all the individual thoughts, perceptions, images, and attitudes that customers hold regarding the brand (Keller, 2013; fig. 1). In a logical way, consumers'

brand knowledge generates their brand attitudes and, consequently, a certain level of brand attachment and involvement. Consumers' brand knowledge is formed starting with brand awareness, which measures how easily consumers recognize the brand and its associated products and how often they recall the brand in certain consumption situations. A high degree of brand awareness favors the further creation of specific brand associations, related to brand performance and brand imagery.

The uniqueness, favorability and strength of these associations will influence consumers' attitudes or responses towards the brand. These attitudes represent both a rational and an emotional evaluation of the brand, which will determine a specific consumer behavior. In addition to the actual brand purchase, a positive mindset will influence brand resonance, consumers' long-term relationship with the brand. The quality of this relationship is measured by consumers' level of emotional attachment and active brand involvement (Keller, 2013).

Keller's (2013) customer mindset is closely related to the concept of *brand image*, defined as „the sum of a customer's perceptions about a brand generated by the interaction of the cognitive, affective, and evaluative processes in a customer's mind" (Lee, James & Kim, 2014). Thus, brand associations and brand responses interact in forming the brand image. Brand image, as part of the customer mindset, can be measured through various qualitative and quantitative techniques which still need a clearer classification (Plumeyer et al., 2019).

The concept of brand image is closely related to that of *brand positioning*. Both brand image and brand positioning refer to all brand associations held in consumers' minds. However, unlike brand image, brand positioning also involves an explicit competitive and categorical frame of reference (the first level of brand identity in Keller's brand equity pyramid). A brand positioning strategy is implemented through one or more positioning options or typologies. These positioning typologies can be based on attributes, benefits, or surrogates (abstract cues, non-related to attributes or benefits) (Crawford, 1985; Fuchs, 2008).

To understand the sources of brand equity from a consumer perspective, it is necessary to measure all dimensions of the customer mindset about a certain brand: awareness, performance, imagery, rational and emotional responses, resonance. In this way, specialists aim to build „mental maps" or a „brand exploratory" that will describe this customer mindset in detail and thus guide specialists in strategic and tactical marketing decisions (Keller, 2013). Depending on the identified brand associations, marketers will create or adjust products and marketing programs to reflect consumer expectations.

We further present the most relevant qualitative and quantitative techniques for measuring the dimensions of CBBE in terms of their advantages and disadvantages, implementation and practical uses. The summary of the classification of BEMMs and of our comparative analysis of the advantages and disadvantages of each method is presented in Table 1.

Qualitative Techniques

Free association, projective techniques, laddering, mapping, neuromarketing and ethnography are the most frequently used qualitative techniques for investigating consumers' associations and attitudes towards a particular brand or competing brands (Plumeyer et al., 2019; Cian, 2011, Keller, 2013).

Free association

The free (word) association technique allows identifying those perceived brand associations which consumers can easily access verbally. Generally, free association is a primary, simple, and quick method for investigating brand image on which future, more complex and detailed CBBE analyses can be based. Respondents are asked to mention all possible features that come to mind when thinking about a certain brand. By coding the free associations into categories, specialists are able to create the brand profile, represented by the sum and nature of possible brand associations (Rahman & Areni, 2016; Chen, 2001). It is important to identify the strength, uniqueness, and favorability of these brand associations.

Thus, the fact that respondents mention frequently or primarily the characteristic of „innovation" in relation to the Apple brand reveals the strength of this association and thus its essential

role in the buying decision. The uniqueness of brand associations can be assessed by simultaneously studying several competing brands regarding the range of consumer associations with each brand.

By using innovative virtual collaboration tools, free association can now be used in the digital environment in a much more cost-efficient manner than traditionally (Danes et al., 2012). Namely, analysis of free association can quickly create brand maps from the ‘top of mind’ brand associations of very large virtual user groups (Danes et al., 2010). In order to discover and understand unstructured brand associations, computer-based text mining and language processing algorithms can analyze and classify various online, brand-related, user-generated content, such as: product reviews and ratings; messages on discussion forums; content, images and tags from social media platforms (Lee & Bradlow, 2011; Liu et al., 2018; Swaminathan et al., 2016; Nam et al., 2017).

This analysis of brand associations can reveal valuable insights into consumers’ mindset, regarding quality perceptions and satisfaction (Tirunillai & Tellis, 2012) and brand engagement (Rosado-Pinto et al., 2020), or into how brands are perceived as being positioned into distinct categories (Nam et al., 2017).

Table 1

Advantages and disadvantages of brand equity measurement methods

Value chain	BEMM	Advantage	Disadvantage
1. Customer mindset	Free association	Rapid, cost-efficient; Can indicate the strength / uniqueness of associations;	Only verbal, salient, un-linked, basic associations;
	Projective techniques: • Comparisons. • Completion/ construction tasks;	Uncover unconscious, socially sensitive consumer motivations, negative attitudes. Usually rapid, cost-efficient;	Difficult to structure data; Skilled staff; Highly subjective interpretation; Lack flexibility;
	Laddering & mapping: • Classic means-end chain.	In-depth analysis of consumer motivations and values; Numerous elicited concepts; Structured;	Time; Expensive; Skilled interviewers; Respondent fatigue;
	• ZMET.	More depth than classic MEC; suitable for numerous sensitive research topics; can reveal illogical/repressed attitudes;	Expensive; Difficult to apply; Trained interviewers;
	• Brand concept maps;	Cost-efficient; Identifies group commonalities and clusters;	Limitations of map aggregation accuracy;
	• Multidimensional scaling;	Compares consumers’ perceptions of brand performance PoPs like attributes and benefits between competitor brands;	Unsuitable for unique PoDs or for evaluating PoP/PoD desirability;
	Neuromarketing.	Versatile in measuring brand awareness / image / resonance; unique, unconscious, instinctual or socially-sensitive motivations;	Expensive; Ambiguous to interpret; Artificial exposure conditions;
	Ethnography.	Cultural and social contextualization of user experience;	Skilled researcher; Time, costs; Intrusive; Complex;
	Netnography;	Unobtrusive; Simple; Flexible;	Biased online sample;
2. Brand market performance	Brand-centered comparative methods:	Isolate the effect of brand name on brand equity.	Unfeasible to evaluate marketing mix elements: a) uniquely/strongly related to a particular brand; b) low in salience;
	• Blind tests.	Separate sensorial product attributes; Determine optimal price premiums;	
	• Brand extensions; • Benchmarking;	Evaluate viability/fit of brand extensions; Compare with representative competitors;	
	Marketing program comparative methods:	Isolate the effect of a particular marketing activity on brand equity; easy implementation;	Difficult to distinguish the effect of the brand/ marketing elements;

	• Price centered;	Determine price elasticity/price premiums;	from: a) the effect of the product category; b) external factors;
	• Brand extensions;	Evaluate viability/fit of brand extensions;	
	• Campaign testing;	Choose optimal promotional/marketing mix;	
	• Positioning base;	Choose optimal positioning strategy;	
	Conjoint analysis	Ranks the importance of brand associations. Suitable for new product launch and brand repositioning; Reveals the differences in rankings between consumer segments;	Expensive; Respondent difficulty to evaluate numerous brand attributes;
3. Brand holistic value	Residual approach:	Isolates the effect of objective, physical product attributes from overall brand preference/ equity;	Unsuitable for brands with predominantly abstract, non-product related associations; Inherent dependency of attribute ratings on brand name;
	• Revenue comparison;	Allows a quick, convenient, and continuous tracking of brand equity evolution;	
	• Utility functions;	Quantify the price of added brand utility, after accounting for control variables;	
	• Multi-attribute models;	Separate the effect of brand equity on product vs. non-product-related preference;	
	Valuation approach: • Interbrand model. • BAV model;	Useful for mergers/acquisitions, brand licensing, brand portfolio decisions, accounting (taxes, compensations), informing financial partners;	Inconsistent valuations between agencies / real-life acquisitions; intransparent, unstandardized, inconsistent methods;

Source: Adapted after Keller (2013); Keller & Lehmann (2003); Keller & Brexendorf (2019);

Projective techniques

Sometimes direct questions do not allow consumers to verbally express what they think and feel about a brand. First of all, consumers often aren't aware of certain brand associations without specific stimuli or are unable to verbalize these brand perceptions. Secondly, direct responses are always subjected to a social or cultural desirability bias. Consumers often adjust their direct answers in relation to certain social standards and in relation to the interviewer's expectations, in accordance to their level of self-monitoring (Aaker, 1999). For example, in the social context of a focus group or an interview, mothers might overly-emphasize the importance of a healthy diet for their children, although in reality they often buy fast-food or ready-to-eat meals. Responses might also be censored and inconsistent with certain private behaviors, such as viewing pornographic material.

To overcome the shortcomings of direct responses or free associations, marketers' resort to projective techniques, which are also much better fit at eliciting the negative emotions regarding product limitations (Vidal et al., 2013). By freely interpreting the ambiguous stimuli offered by projective techniques, respondents are in fact projecting their deeply rooted feelings and motivations into their answers (Cian, 2011). Projective techniques can involve associations (of words/pictures), comparisons, completion/construction tasks, expressive techniques, or choice ordering (Donoghue, 2000; Keller, 2013).

Comparisons can be used after the free association task, to reveal more in-depth associations regarding brand image. Through pairwise comparisons, consumers are asked to associate a specific brand (e.g., Microsoft) with an exemplar of a symbolic category (e.g., animal, car, nationality, specific personality, occupation, etc.) to which the brand mostly resembles. Consumers may also be asked what personality traits they would attribute to the brand if it were a person or how they perceive the brand's users. This will reveal important aspects regarding brand personality and the personality of typical brand users.

Completion of construction tasks use ambiguous stimuli in order to reveal more abstract aspects of brand or user imagery (Keller, 2013). For example, the storytelling technique asks consumers to continue a story about a brand's products or users, starting from verbal or picture stimuli. The created narratives are later analyzed for common themes and means-end chains motivations that might be associated with the brand (Cian, 2011). The *collage* technique asks respondents to interpret and continue a series of cartoons in which brand-related products or usage contexts are presented. While storytelling

and collages rely mostly on verbal expression, expressive, art-based techniques rely on helping consumers express unconscious brand-related emotions and attributes in a symbolic, artistic, non-verbal manner (Baumgarth & Yildiz, 2016; Koll et al. 2010). Such expressive techniques are Lego Serious Play, Multi-sensory Sculpting, Psychodrawing or the Brand Visual Elicitation Platform (Baumgarth & Yildiz, 2016; Dzyabura & Peres, 2020).

Laddering and mapping

The disparate identification of the attributes and benefits that consumer associate with branded products isn't sufficient. Marketers also need to understand the logical connections between a specific product attribute, the perceived benefit it helps consumers achieve, and the relevance of this benefit to consumers' goals and personal values.

Cognitive models of means-end-chain theory use the laddering technique to identify these connections between attributes, benefits, and values (Reynolds & Olson, 2001). In general, laddering elicits a richer variety of concepts and is more structured than other qualitative techniques, but is more costly, time consuming, requires trained interviewers and might lead to respondent fatigue (Miles & Rowe, 2004).

ZMET (Zaltman Metaphor Elicitation Technique) uses the metaphors specific to projective techniques to tap into profound, subconscious consumption motivations in more detail than traditional means-end-chain methods (Christensen & Olson, 2002). During one-on-one interviews, ZMET combines storytelling and various image-based tasks - such as sorting, interpreting, choosing the most typical/ different images or creating a visual summary of the researched topic - to help create in the end a map of interconnected mental constructs (Cian, 2011, Keller, 2013). ZMET can successfully study brand image and brand resonance, revealing unique insights about: various socially sensitive subjects (Siergiej & Eason, 2009), negative brand feelings (Dehdashti & Bashipour, 2019), design and usability of virtual products (Ling et al., 2009; Mercado-Gonzales et al., 2018), sensorial marketing techniques (Garg & Chhikara, 2019; Nascimento, 2019) or different types of service markets (Hancock & Foster, 2020). ZMET can also analyze online user content to distinguish between users with various degrees of loyalty (Demirel, 2017). In practice, however, ZMET can be expensive and difficult to apply (Ramjaun, 2021).

An alternative to ZMET is the *Brand Concept Maps* (BCM) technique, based on identifying the network of brand-conscious associations, as well as the structural relationships between the nodes of the network (John et al. 2006; Schnittka et al., 2012). The BCM first step entails eliciting brand associations by free association, followed by participants mapping/connecting the most frequently elicited associations. Finally, a brand concept map is created by overlapping consumers' individual maps of brand associations into a consensus map, by using a specific set of rules (Böger et al., 2017). While classic brand concept maps are created by respondents on physical poster-boards, computer-based BCM are more time and cost-effective and also much easier to create, use and modify by respondents (Meissner, 2015).

Community-aided brand concept maps (CA-BCM) can be cost-efficiently generated by use of easily available online consumer-generated data, such as public reviews and postings (Divakaran, 2014; Gensler et al., 2015). A cluster analysis of various individual brand concept maps can also serve for identifying and better understanding different segments of brand users (Demirel, 2017; Brandt et al. 2011). Thus, the methodology of BCM aggregation is evolving in accuracy and generalization (John et al., 2006; Bögger et al., 2017).

Multidimensional scaling through perceptual maps allows understanding the brand's positioning on various specific attributes and benefits in relation to competing brands. Perceptual maps can usefully compare concrete brand performance elements which are competitive PoPs but are less applicable in comparing intangible brand imagery elements, truly unique PoDs and emotional reactions across brands (Fuchs & Diamantopoulos, 2012). Also, perceptual mapping cannot evaluate whether a position on the map is still relevant for consumers or whether a long-established competitive PoP currently exceeds consumer needs or, even worse, has become undesirable (Moon, 2010).

Neuromarketing

Neuromarketing techniques - such as eye tracking, pupillometry, brain mapping or facial coding - analyze consumers' physical reactions as a marker for their cognitive and emotional responses

to specific neuromarketing “stimuli” or “antecedents”. The stimuli can be single or combined elements of the marketing mix (Lim, 2018). Neural research techniques can disclose unconscious, instinctual, and socially sensitive motivations, inaccessible through conventional methods. However, the artificial stimuli exposure can be obtrusive and the interpretation of results controversial.

Neuromarketing can be used to better understand consumers’ attention patterns, brand memory encoding, brand recognition and brand recall (Bercea, 2012). In a physical buying environment, brand recognition can significantly be affected by package size and design, or by the visibility of the brand logo from different angles and distances (Keller, 2013). Simple logos elicit easier brand recognition and recall on a short-term, while complex logos are more difficult to recognize, but elicit richer brand associations on the long-term (van Grinsven & Das, 2016; Stancu et al., 2021). Therefore, neuromarketing in-store eye-tracking techniques can measure the efficacy of different variants of product packaging in eliciting brand awareness and consequently brand choice (Salehi et al., 2021; Juarez-Varon et al., 2020; Hurley et al., 2017). For example, Campbell soup used neuromarketing research to significantly raise the emotionality of the packaging of its soup cans by adding more vibrant images of steam rising from the soup, removing the ‘unemotional’ spoons and moving the script logo to the bottom of the can (Kerin & Hartley, 2021).

Moreover, combined with a survey, neuromarketing can identify the particular elicited emotion(s) which mostly favor memorizing the advertising message: either positive ones like interest, joy, trust and engagement or, on the contrary, negative ones like sadness, fear, regret, disgust and detachment (Baraybar-Fernandez et al., 2017).

Neuromarketing techniques can also measure consumers’ cognitive and emotional reactions to marketing mix elements which communicate about *brand performance* and *brand imagery*. In particular, neuromarketing can evaluate the efficacy of various advertising stimuli in influencing the perceived brand image. For example, by studying gaze points, fixation counts, heat maps and emotional reactions, neuromarketing techniques can identify which specific elements of online advertising, website design or online shop display elicit the highest interest and thus mostly contribute to a positive brand image (Singh, 2020). Neuromarketing techniques can complement surveys, helping to assess the congruence between observed emotional responses and declared answers. For example, in evaluating users’ experience with mobile commerce browsing, neuromarketing techniques revealed different emotional reactions than those declared via survey (Adhami, 2013).

Consumers’ degree of brand loyalty and brand engagement can also be measured using neuromarketing techniques, by studying the degree of blood flow in the medial ventral cortex (Lee et al. 2007; Valencia, 2017). Neuromarketing can thus measure the intensity of the emotional connection between the brand and consumers, identifying the degree of attraction towards and dependence on the brand.

Ethnography and netnography

Ethnographic techniques involve the researcher in the daily lives of consumers (in their natural home, work or shopping environment) to directly observe their detailed user experience and symbolic, socio-cultural motivations in relation to products and brands. Such brand-related behaviors are so habitual or culturally complex that they are otherwise difficult to describe verbally and in a controlled environment (Moisander et al., 2020). Ethnographic research can reveal specific everyday household needs currently uncovered by branded products (West, 2004) or how consumers use ‘invisible’, mundane brands they are not aware of (Coupland, 2005), thus leading to innovation in product usability and design and to other relevant adaptations of the marketing mix. Ethnography can be applied to disclose the various sources of brand equity, the emotional and community-building role of brands and the steps of the buying decision process (Reyes Reina, 2013).

Netnography is the online correspondent of ethnography. It requires the observation of online communities – such as forums/discussion boards and thematic opinion webpages – while directly interacting as a regular member or only through computer-gathering of secondary data. Netnography is considerably simpler, more time and cost-effective, less obtrusive and subjective than traditional ethnography (Kozinets, 2002). Netnography can help identify lead users, who possess unique insights into product innovation (Belz & Baumbach, 2010) and can provide valuable insight into the dimensions of CBBE for various retail products and for services like tourism and sports (Bartl et al., 2016). However,

as brand users in online communities might have a very specific profile, the characteristics of brand users uninvolved in generating online content should not be neglected.

Quantitative Techniques

In addition to qualitative techniques, various quantitative techniques can be used to further understand the customer mindset. Quantitative techniques can refine or confirm the insights revealed by qualitative techniques or can be employed independently. They can measure the level and characteristics of brand identity, as well as the prevalence of certain brand associations, attitudes and behaviors among a particular target segment.

Each dimension of the customer mindset (brand awareness – recognition and recall, performance, imagery, judgments, feelings, resonance) can be measured through traditional surveys using various simple or unstructured items (Keller, 2013, pp.123-124). Overall, surveys still seem to represent the most often used quantitative technique in marketing scientific studies and are frequently used in triangulation with exploratory, qualitative methods (Petrescu & Lauer, 2017). However, the rise of artificial intelligence (AI) has significantly lowered the necessity of asking respondents specific survey questions to gather primary data for quantitative analysis. Instead, purchasing patterns can be more easily identified by AI web scraping, mining, and analysis of ‘big data’.

Some of the qualitative techniques presented above (free associations, brand concept maps, netnography) can take a quantitative nature due to the facilities offered by large sets of available online data and AI analysis. Moreover, user-generated content can be simultaneously analyzed from a quantitative and qualitative perspective. For example, combining the quantitative nature of ratings with the qualitative data mining from reviews can provide ideas for improving product design, communication and post-purchase strategies (Chatterjee, 2019).

Big data can be analyzed mostly from online, but also from offline sources. Checkout barcode scanners can reveal how consumers associate different products in their shopping carts. For example, such scanners revealed that ‘diapers and ‘beer’ are significantly bought together, leading to a reconfiguration of the associated shopping isles (Kerin & Hartley, 2021). AI algorithms can track various online visits (e.g., cookies from search engines browsing, visited websites, social media activity, public reviews), even across devices. Online tracking not only provides personalized ads and offerings but can aggregate individual consumer profiles which reveal key psychographic and consumption patterns of target segments for a particular product category or brand. Although an invaluable source of marketing information, such practices are subject to important ethical issues (Jain et al., 2016).

Measuring Market Performance

In addition to acknowledging customers’ various brand associations and the attitudes generated by these associations, it is necessary to understand how the individual marketing program elements contribute to shaping this customer mindset. Therefore, marketers need to identify the sources of CBBE and how they lead to *specific outcomes or benefits* related to market performance, such as: the ability to use price premiums and benefit from price elasticity, the size of market share, successful brand extensions and new product launches, the ability to reduce the cost structure of marketing programs and ultimately overall profitability (fig. 1, Keller & Lehmann, 2003). Thus, market performance measures estimate the possible benefits which result from consumers’ differential response to brand-related marketing activities (Keller & Brexendorf, 2019).

Brand-centered comparative methods

Comparative methods can measure the specific benefits or outcomes of brand performance, resulted from consumers’ differential response to various controlled stimuli regarding the brand, marketing programs elements or product attributes (Keller & Brexendorf, 2019).

Brand-centered comparative methods aim to separate the effect generated by brand name and thus by brand knowledge on consumer attitudes. To this purpose, two different consumer groups are used to evaluate the same marketing program element(s), one group in which the real brand name is

revealed and another where fictional or competitor brand names are attributed. In the end, the differences between the answers of the two groups indicate the effect generated by the brand on consumer perceptions.

In practice, this method is used in *blind tests*, in which consumers evaluate a product knowing or not knowing its brand. When they do not know the brand, consumer evaluations are based only on previous experiences and personal expectations regarding the overall product category (Christodoulides & De Chernatony, 2010). Therefore, there is often a significant mismatch in perceived quality between the blind evaluation and the branded evaluation (Fornerino & d'Hauterville, 2010). The method is most frequently used in comparing branded and unbranded foods, by measuring the emotional reactions generated only by the food's sensorial attributes with those elicited when the brand or packaging are also known (Spinelli et al., 2015).

Brand-centered comparative methods can be a useful tool for testing the viability of launching new brand extensions (Munteanu & Florea, 2012). The brand extension could be attributed to the real parent brand and to a fictional or competitor parent brand, on separate groups of respondents. Thus, when launching a new product, marketers can evaluate whether a brand extension is well fit to leverage positive brand equity or it is better to launch the product under a new brand. For correctly assessing the viability of brand extensions, comparative methods should ideally also account for the effect of the product category and of existing competitors in that category on perceived brand equity (Kapoor & Heslop, 2009). Moreover, even if the extension fit is evaluated positively, the spillover effect of the extension on the equity of the parent brand or of other sub-brands in the portfolio should also be evaluated, to avoid brand dilution (Keller, 2016). Thus, perceptions of the new product could be compared under different types of brand extensions – direct, sub-branded or independent – (Boisvert & Ashill, 2018) versus a fictional/competitor brand attribution, to assess what type of extension might be optimal for brand equity.

Any comparative method is usually based on a comparison with a benchmark for that product category (Thompson et al., 2006). Therefore, it is critical to identify representative brands for a product category, which can be used as *benchmarking* in comparative studies. For example, when launching a new product or campaign, it may be helpful to assign the product or campaign to the main competitors. In this way, consumers' reactions to the main competing brands can be compared, eliminating the influence of the product category. Still, some salient product characteristics or marketing elements might be so strongly and inherently related to a particular brand, that it might not be credible to attribute the product to a fictional or competitor brand. On the other hand, some product characteristics might not be salient for consumers, and thus experimentally emphasizing them might offer skewed results (Keller & Brexendorf, 2019).

Marketing program-centered comparative methods

Comparative methods can also be focused on the marketing program, while the brand name remains fixed (Keller, 2013). These methods aim to isolate the effect of different marketing activities on consumer brand perceptions, as well as on future sales and profits. In this way, the return on investment in marketing programs can be determined. Marketing-centered comparisons can focus on any aspects of the marketing program, such as the efficacy of different variants of positioning bases, advertising styles, product attributes and packaging, price levels and distribution strategies.

A first utility of these methods is to determine price elasticity and the optimal value of price premiums (Hoffer & Bosch, 2007). For example, Coca-Cola may estimate the percentage of customers willing to switch to Pepsi or give up consuming Coca-Cola at various incremental Coca-Cola price levels. In this way, the degree of consumer loyalty can be assessed, as well as the change in purchasing frequencies depending on price.

Marketers can also identify which types of brand extensions leverage positive brand equity by comparing consumers' responses to various possible brand extensions for a particular parent brand. Results can reveal which specific brand associations can successfully be leveraged to a different product category and which product categories hold associations incompatible with the parent brand.

Comparative methods can also be used to evaluate the efficacy and efficiency of promotional activities. Promotional activities can be applied differently in several test markets, in order to compare the responses of consumer groups in each location. Depending on the success of each test promotional

campaign, the most effective one can later be launched on a large scale. Differential advertising campaigns in terms of creative copy, ad frequency or combination of media channels can guide the choice of an optimal media plan with the most synergistic effects on CBBE (Havlena et al., 2007). Ideally, differential test campaigns might reveal that the brand is able to reduce its advertising budget without affecting sales, due to its already solid brand equity. Different advertising execution styles can also significantly affect consumers' response to the same type of message (Terblanche-Smit et al., 2016).

Differential marketing campaigns or blind tests can also be used to isolate the efficacy of a particular positioning base communicated through advertising or product packaging. The salience of a particular brand attribute or benefit in the communicated positioning could be manipulated to evaluate the differential brand response. Moreover, any surrogate positioning base – that is non-product or attribute related (Fuchs & Diamantopoulos, 2012; Fuchs, 2008; Crawford, 1985) - can be manipulated in experimental marketing programs in order to assess its effect on brand equity. For example, the differences between blind and informed tests have revealed that positioning soybean paste on tradition is efficient for older target customers, but not for young ones (Kwak et al., 2017).

Sustainability positioning proved relevant in enhancing taste perceptions for chocolate, but only when it was associated in communication with cues regarding sensory product quality (de Andrade Silva et al., 2017). Manipulating the visibility of country-of-origin or region-of-origin positioning can help evaluate whether brand equity is improved or negatively affected by origin positioning (Kokthi & Kruja, 2017; Stefani et al., 2006; Cristea et al., 2015). Neuromarketing techniques can also help identify the superior advertising style for an already chosen positioning base. For example, in FMCG advertising, celebrity endorsement prints proved superior in raising brand attitude, while non-celebrity spokespersons were better suited for raising brand awareness (Pileliene & Grigaliunaite, 2017).

Still, it might be difficult to distinguish the specific effect of the brand and of marketing activities from that of the overall product category (Keller, 2013). Therefore, marketing-program centered comparative methods should also be run in parallel on competitive brands, although it is not always feasible to do so. When comparing the results of test marketing campaigns in different locations or markets, it might be even more difficult to isolate the effect of the campaign from that of various external factors (Kerin & Hartley, 2021). The researcher should try to account for the differential effects of competition, location and consumer profile on consumers' response to the experimental campaigns on different test markets.

Conjoint analysis

Conjoint analysis is a comparative, multivariate method based on ranking brand attributes and advantages, used especially in launching new products or in brand repositioning (Auspurg & Hinz, 2015). It is a type of multifactorial experiment, where alternative levels/descriptions of different factors relevant to the consumer buying decision (such as product attributes, buying or consumption situations, persons) are manipulated and then connected to consumers' willingness to pay a higher price or non-monetary cost (Auspurg & Hinz, 2015).

Conjoint analysis can successfully rank the importance of several types of cues and brand associations: attribute-related, benefit-related, or surrogate positioning associations. Consumers order a number of brand-related variables - such as brand name, price, design, warranties or extrinsic cues - in accordance with their relative importance in their buying decision process (Orme, 2006; Méndez et al., 2011). By comparing various profiles consisting of various combinations of brand-related variables, one can identify the optimal combination of brand positioning elements, their levels, and their order of importance. In this way one can understand the structure of consumers' decision tree regarding various products and brands (Green & Srinivasan, 1990).

By comparing the relative importance of brand associations for the consumer, as well as the company's costs for creating and delivering these associations, one can assess the relative importance of each association for brand equity (Ferjani et al. 2009; Toklu, 2017). The comparative nature of conjoint analysis can thus serve to:

- Reveal how different consumer segments rank the importance of a set of brand associations. For example, for green consumers, the sustainability-related features of apparel matter most for their willingness to pay, while non-green consumers emphasize price and design as the most influential buying drivers (Brand & Rausch, 2021).

- Identify how different markets and cultures perceive and evaluate brand associations differently (Jin et al., 2010), providing a guideline for adapting positioning strategies and marketing programs on international markets.
- Contrast the efficacy of various alternative types of cues in eliciting a specific, desired brand association (de Meulenaer et al., 2015).
- Quantify the level of commitment and intimacy to the brand, by calculating the monetary and non-monetary costs of loyalty consumers are willing to pay. Both behavioral and emotional loyalty can be manipulated to determine how easily the brand can be substituted in consumption (Auspurg & Hinz, 2015).

Conjoint analysis also involves a number of disadvantages, such as high implementation costs and respondents' limited ability to simultaneously evaluate a large number of brand attributes. In order to reduce the number of evaluated attributes, the traditional preference-ranking or choice-based methods might omit important elements in the evaluation of brand equity. Moreover, the marketing profile resulting from the chosen brand elements might contradict consumers' expectations for a particular brand or product category (Keller & Brexendorf, 2019). Thus, to ensure the evaluated attributes are first of all realistic and relevant to the individual consumer, adaptive conjoint analysis and self-explicated conjoint analysis are also used (Rao, 2014).

Holistic Measurement of Brand Value

Finally, it is important to assess brand equity holistically, in terms of overall utility and monetary value. However, the customer mindset brand equity will only partly be reflected in current financial profits and will mostly impact the future, long-term financial performance of the firm (Mizik, 2014). Thus, for any company, it is essential to correctly evaluate the intangible brand assets, the most important one being brand name. These intangible brand assets can be estimated through a residual approach, by subtracting the role of the physical product attributes in the formation of the overall brand preference. From a financial perspective, brand equity represents the estimated value of future economic benefits obtained by brand owners (Keller & Brexendorf, 2019).

The residual approach

In practice, consumer preference for a particular brand is generated by a series of interdependent actions and elements, which form the aggregate brand value (Munteanu & Florea, 2012). Holistic methods based on a residual approach seek to reduce these interdependencies by separating the brand preference generated by specific, objective physical product attributes from the preference for the overall brand (Srinivasan et al. 2005). The difference between the intensity of these two preferences is caused by brand equity, traditionally defined as the incremental value brought to the physical product by the brand and by the marketing programs (Tuominen, 1999). Residual approaches could expose if the brand fails to differentiate itself sufficiently from competing, more generic brands, or, on the contrary, is perceived as significantly superior. Such residual approach methods are:

- Revenue comparison - the difference in revenues obtained by a specific brand versus a generic brand in the same supermarket represents the brand equity (Ailawadi et al., 2003). Revenue premiums consider both the price premium and the market share (Huang & Sarigollu, 2014);
- Utility functions method - calculates the equalization price, the difference between the utility of a particular brand and the utility of generic brands in a product category, while controlling for the effect of brand name, brand attributes, consumer differences and price (Swait et al., 1993).
- Multi-attribute attitude models - break down brand equity into components like attribute-based preferences and non-attribute-based preferences, identifying how each component varies from objective evaluations, as a result of brand equity (Srinivasan et al., 2005; Dillon et al., 2001).

The main advantage of residual approaches such as revenue comparison from supermarket data is that they allow tracking the evolution of brand equity over time, in a simple, cost-efficient and continuous manner (Huang & Sarigollu, 2014; Sriram et al., 2007). The disadvantage of residual methods is that they are only suitable for brands with many associations related to product attributes, being thus unable to distinguish between the various types of more abstract, non-product related brand associations (Keller, 2013).

The valuation / financial approach

There are also holistic methods based on specialized estimative approaches, which aim to financially quantify brand benefits and the overall brand value. These financial valuations are strategically important for mergers and acquisitions, informing financial partners, fund raising, brand licensing, brand portfolio decisions or evaluation of taxes and compensations (Keller, 2013; Moisescu, 2007). Several such financial evaluation methods have been proposed lately in the academic literature. Some holistic models try to integrate CBBE and financial brand equity (Shamma & Hassan, 2011). Notably, De Oliveira's et al. (2015) model provides a monetary estimation for CBBE and thus for the marketing actions, by calculating a net present value of future cash flows. Also, in particular, it has been shown that advertising spending directly influences the firm's long-term market capitalization and brand valuation and can even negatively impact the market valuation of a competitor of comparable size (Joshi & Hanssens, 2018; Peterson & Jeong, 2010). Thus, marketing, and financial goals are closely interconnected, as marketing investments lead to higher financial resources which can be further invested in strengthening brand equity (Fischer & Himme, 2017).

However, the most largely applied holistic models of financial brand valuation are not academic ones, but those developed by consulting agencies such as Interbrand, Brand Finance and Brand Z (Keller & Swaminathan, 2020). We further shortly present two of these popular industry approaches.

The Interbrand model

The holistic brand valuation model of Interbrand uses a revenue-focused methodology as a source of brand value (Salinas, 2011). Through financial analysis, the economic profits generated from intangible assets are separated and estimated. Demand analysis identifies the market factors that influence demand, as well as the influence of the brand on each of these factors (RBI). Competitive analysis calculates the brand strength score (BSS), consisting of the strengths and weaknesses of the brand. On the one hand, financial analysis and demand analysis estimate the profit brought by the brand. On the other hand, competitive analysis estimates the risks that the brand will not generate future profits. By multiplying the profit by the estimated risks, the Interbrand model thus calculates the financial value of the brand.

In calculating the brand strength score, the Interbrand model evaluates ten dimensions that generate brand power. Clarity measures the degree of understanding of brand characteristics, while commitment estimates the degree of internal brand support within the company. The brand value proposition is evaluated in terms of its authenticity and its ability to be supported during interactions with consumers. The model also measures the degree to which brand characteristics are relevant to consumers, present and consistent in communication.

Regarding competition, the brand is evaluated in terms of its degree of legal protection and its level of differentiation from competitors. Finally, the brand's responsiveness to changes in the marketing environment is appreciated. It is visible that the ten dimensions of brand power are related to both the internal, company-related environment and to the brand's adaptation to its external environment, consumer requirements and competitive challenges.

The Brand asset valuator model

Another model for estimating financial brand value is Brand Assets Valuator (BAV) - developed by Brand Finance - which evaluates consumer brand perceptions as the main source of brand value. Basically, the model connects the customer mindset and the brand financial value (Keller & Lehman, 2003). Thus, there is a strong connection between customer-based brand equity and sales-based brand equity as measured by BAV (Datta et al., 2017). Consumers' brand perceptions are divided into five dimensions or pillars: differentiation, relevance, esteem, knowledge and energy, each pillar consisting of one or more constructs.

Brand value is determined by longitudinal brand studies, which emphasize the dynamics of each pillar in relation to indicators of brand market capacity. The dynamics of each pillar provide information about the brand's progress in building solid brand equity (Mizik & Jacobson, 2008). The

relationship between the pillars is also revealing about the brand's potential to create and sustain new brand extensions (Keller, 2013). Another application of the BAV model is the comparison of each brand pillar with the pillar corresponding to competing brands, thus identifying the brand's strengths and weaknesses in relation to competition (Mizik & Jacobson, 2008).

Although the commercial brand valuation approaches of these major consulting agencies have similarities, they are criticized due to the significant differences in evaluation and rankings from one agency to another and also in comparison to the real-life transactions prices for ranked brands which are actually sold (Fischer et al., 2018). Therefore, although they remain relevant for investors' decisions (Bagna et al., 2017), commercial brand valuation approaches raise questions regarding their credibility and utility (Duguleană & Duguleană, 2014). For example, all major approaches of Interbrand, Brand Z and Brand Finance heavily overestimated brand value up to five times for banking and telecommunication industries, while somewhat lower over or underestimations were found for retail and consumer brands (Ritson, 2015).

Differences in estimations mostly appear due to a lack of standardization of valuation practices. For example, each brand valuation model has a slightly different approach for measuring consumers' brand perceptions (Keller & Swaminathan, 2020). More importantly, for any brand, financial analysis can be run using any of the three main approaches - market-based, cost-based and income-based - either separately or combined. Therefore, the brand financial evaluation is not homogenous between the brands evaluated by the same consulting firm, let alone between those evaluated by competing firms (Duguleană & Duguleană, 2014).

In an attempt to diminish these inconsistencies, ISO provided a unitary valuation framework through the ISO Standard 10668 regarding requirements for monetary brand valuation, launched in 2010 and reviewed in 2017. A clearer and more transparent classification and evaluation of the various types of intangible assets could also further enable a more standardized brand financial evaluation (Pastor et al., 2017; Gu & Lev, 2011). However, standardization might be hesitantly embraced, as specialist valuation firms purposefully seek to differentiate their proprietary method for marketing purposes (Salinas & Ambler, 2009).

Conclusions And Recommendations

This article presented a required updated review of the characteristics, strengths, and weaknesses of the available new and old methods of gathering and analyzing data regarding brand equity - a priority also noted by Keller (2016) and Keller & Brexendorf (2019). This review serves as a straightforward managerial guide for identifying and selecting the most adequate brand equity measurement methods (BEMMs), depending on the firm's specific marketing objectives and on the external market context. In particular, the summary of BEMMs advantages and disadvantages in Table 1 represents a very convenient and swift tool to assist managers' decision-making process in solving a specific branding problem. By selecting and implementing the optimal BEMMs, managers can identify and mitigate brand weaknesses, as well as maximize brand strengths, in a timely, holistic, and efficient manner.

We further present recommendations regarding how each of the three categories of BEMMs can serve in distinct research contexts. Next, we emphasize the complementarity and interdependence of BEMMs with concrete examples of combined BEMMs. Finally, we note the practical limitations of BEMMs.

First of all, measuring the customer mindset allows brand managers to understand the various types of brand associations perceived by consumers, as well as their effect on consumers' brand attitudes and behavior. The identified brand associations which are evaluated as favorable, relevant, and central to the brand positioning strategy might be further strengthened through the entire marketing mix and especially the promotional mix. If some associations are already very strong in consumers' minds, the brand might refocus on communicating other complementary brand associations. First of all, there might be important, desired brand associations which aren't yet salient enough for consumers and which could therefore be more clearly and intensely communicated. But most importantly, qualitative techniques - especially projective techniques - can reveal new potential desirable brand associations and sources of brand equity which haven't yet been considered and communicated through brand positioning. Thus, CBBE qualitative research could focus on generating

innovative ideas for new products, product improvement or for creative advertising and communication techniques favorably associated with an existing or new brand (Zikmund & Babin, 2016).

On the other hand, less favorable brand perceptions - which contribute to confusions, cognitive dissonance and negative brand attitudes - can be mitigated by adjusting the components of the marketing mix or even by repositioning the brand. Although a certain brand association might seem desirable by itself, it is essential to distinguish whether it might hurt the overall brand image due to incompatibilities to other existing brand associations. The qualitative and quantitative measures of the customer mindset described in this article could be combined to identify these potential *undesirable brand associations*. Next, managers should try to identify the *exact sources* of specific negative brand associations through further qualitative methods such as laddering and projective techniques.

At times, discrepancies between the desired and the perceived brand associations might appear from an inconsistent or poorly executed communication strategy. These discrepancies might easily be justified by comparing the brand association map revealed by CBBE measurement - also called brand exploratory - with the brand inventory, the description of all brand elements and marketing mix elements meant to be the source of CBBE (Keller, 2013, p.294). Additionally, if consumers familiar with distinct communication channels perceive brand associations differently, this might reveal which communication channel is more problematic in correctly communicating brand image and is thus generating negative brand associations.

However, often, although the marketing program is correctly executed and the desired brand positioning is transmitted, consumers might still interpret and perceive the communicated brand positioning in unwanted ways (Fuchs, 2008). In this case, the problem is not with the execution, but with the conceptualization of the marketing program, which stems from the *brand positioning strategy*. On the one hand, consumers' differential response to the brand is indeed generated by all brand-related marketing programs. On the other hand, as brand positioning is only partly under marketers' control (Dibb et al., 2016), consumers' brand image and brand response will also be influenced by:

- Consumers' individual characteristics - objectives, personal values, beliefs, personality, lifestyle, consumption patterns and previous experiences (Hawkins & Mothersbaugh, 2020; Schiffman & Wisenblit, 2019);
- External factors - competition, social factors (e.g. word of mouth) or noise (Brown et al., 2006).

Therefore, there might be significant differences between the positioning intended to be communicated through the marketing program and consumers' perceived brand positioning (Fuchs, 2008). The perceived positioning might incorporate undesired brand associations caused by external sources or by the individual characteristics of consumers (Hawkins & Mothersbaugh, 2020). Different corrective approaches could be employed, depending on whether the perceived positioning discrepancies are related to the execution or to the overall conceptualization of the marketing program. When the marketing program fails to account for important aspects of consumer profile or of the external marketing environment, brand repositioning and, perhaps, even improved consumer segmentation and targeting could be necessary.

By using various BEMMs, marketers can evaluate whether the perceived positioning differs substantially from their intended positioning and, most importantly, why. Projective techniques, laddering and ethnographic studies can help reveal the particular external or individual influences which lead to the perception of unexpected and often undesired, negative brand associations. With the new gained insights, the brand can be repositioned in accordance to the different characteristics of each identified consumer segment. For example, a classic study which used the projective technique of comparative storytelling revealed that many women were reticent to adopt instant coffee so as not to be perceived as lazy due to existing social norms (Haire, 1950). To establish a point-of-parity with traditional coffee in terms of user imagery, the repositioning of instant coffee portrayed how its buyers are saving time for more important household activities.

Secondly, from the perspective of market performance, managers could evaluate the effectiveness of marketing actions by using comparative methods. These methods allow identifying the specific sources of consumer brand perceptions, resulting from the brand name, specific marketing program elements or product attributes. Also, identifying benchmark practices in the product category

and comparing them with one's own practices can provide valuable information. For mature, well-established brands, market performance evaluations related to price premiums and brand extensions can help reap the advantages of the strong existing brand equity. Comparative campaign testing is invaluable for launching a product/service under a new brand or brand extension or for extending brand presence on a new, international market.

Thirdly, measuring the holistic brand value is useful for monetarily estimating the additional utility brought to consumers by the brand or the future economic benefits for the trademark owners. Residual holistic methods allow expressing brand value in abstract terms of utility, by separating the value based on product attributes from the total brand value. Financial methods estimate an overall monetary value of the brand as a consequence of CBBE.

Residual BEMMs can represent a regular health check for the brand. They can help identify how the amount of perceived superiority of the brand over generic products fluctuates over time. Moreover, residual approaches can emphasize whether the brand's added value is dominantly caused by product or non-product related brand attributes. Although brand equity is by definition the intangible value added over physical product characteristics, it is important that consumers remain satisfied by the objective product performance, so as to strategically prevent competition from exploiting perceived product weaknesses. Thus, if the brand added value is minimally based on product attributes and is over-reliant on non-product related attributes, this might signal a potential future reputational risk for the brand (Florea et al., 2016).

Managing directors can strategically track the evolution of the brand's financial valuation. First of all, brand valuation fluctuations can signal an opportunity or a threat for various stakeholders and business partners and for potential investors, mergers, or acquisitions. Secondly, they can also signal external, complex, competitive, and macroeconomic changes of which CEOs and brand managers might not yet be fully aware of. However, it is important to understand the elements, mechanisms, and potential weaknesses of each commercial brand valuation method in order for managers to fully reap the practical uses of a chosen brand valuation report. Additionally, managers could run an in-house risk profile for their brand regarding reputational risk, presence risk, loyalty risk and halo effect risk (Florea et al., 2016).

These types of risks are largely related to the external factors described by the investor sentiment and the marketplace conditions (fig. 1, Keller & Lehmann 2003; Brown et al., 2006). The complementarity and interdependence between marketing programs, the customer mindset and the brand's market performance must be taken into account, according to the brand value chain model (Keller & Lehmann, 2003, fig. 1). Creating brand value is a cyclical process, which changes permanently over time, depending on all its causal and moderating factors. Therefore, it is necessary to use several combined measurement methods presented in this article, in order to be able to capture complex aspects of brand equity. Used by themselves, these methods offer only a one-dimensional vision, as none completely captures the dimensions of brand equity.

However, triangulation can provide a holistic, integrative, flexible and more reliable view upon complex marketing research problems. Triangulation could involve combining two or more qualitative methods, quantitative methods or using a mixed methods research design (Petrescu & Lauer, 2017; Belk, 2017; Harrison & Reilly, 2011).

First of all, qualitative, exploratory techniques can reinforce each other in revealing elements of CBBE:

- The strength, favorability and uniqueness of potential brand associations first elicited through the basic and rapid free association technique can be further analyzed through brand concept maps (Schroll, 2019), laddering, neuromarketing or ethnography.
- Free associations reveal varied and mostly positive brand associations, while projective techniques better unveil product limitations and negative brand associations (Vidal et al., 2013);
- Classical conversation techniques (focus groups, semi-structured and in-depth interviews) can all benefit from applying some degree of laddering and projective techniques for better understanding consumer motivations (Donoghue, 2000);
- Projective techniques (such as interpretations of stories or images) can be followed-up by in-depth, laddering interviews to better understand the rationale of respondents' interpretations (Scott & Vargas, 2007);

- ZMET can be employed for eliciting unconscious/repressed brand associations, to be codified by the researcher into preselected cards/associations, which will further be used by respondents to create their brand concept map (Brandt et al., 2010);
- Brand concept maps and means-end-chain laddering can successfully complement each other to reveal the deeper personal meaning of brands associations (Ilicic & Webster, 2015).
- Netnography is frequently used in combination with focus groups, in-depth interviews, traditional ethnography and surveys (Heinonen & Medberg, 2018);

Secondly, qualitative, and quantitative BEMMs can be usefully combined in exploratory designs (Harrison & Reilly, 2011). Qualitative, exploratory customer mindset measures can be followed up by surveys and then by market performance measures. The rich and specific brand associations and customer mindset insights first revealed through qualitative techniques (table 1) represent emerging grounded theories, which can be further tested through quantitative techniques to confirm their accuracy and relevance for particular customer segments. For example, declarative methodologies such as *surveys* will strengthen the conclusions of neuromarketing studies, removing any potential ambiguous interpretations (Moya et al., 2020) or, on the contrary, will reveal potential discrepancies between consumers declared and observed behavior (Adhami, 2013). Besides surveys, *differential campaign testing* can also confirm the qualitative insights and help select the most relevant insights for brand positioning. Differential campaign testing can compare the efficacy of different marketing mixes for implementing a chosen positioning strategy.

However, sometimes, different qualitative techniques can each provide sound reasons to position the brand on various positioning bases (Morais, 2020). Thus, marketing program testing might also compare potential brand positioning strategies which use *different positioning bases*. Finally, to better isolate the effect of the product category on marketing program comparative testing, *conjoint analysis* could be complementarily used (Keller, 2013).

Thirdly, qualitative methods could help explain results obtained through quantitative data, in explanatory research designs (Harrison & Reilly, 2011). Thus, holistic residual approaches or comparative methods can be combined successfully with a quantitative survey of the customer mindset and followed-up by explanatory projective techniques (table 1). First, revenue comparison measures can be a quick and convenient method to track the evolution of brand equity over time. Given that revenue premium fluctuations can be a preceding sign of customer mindset changes (Huang & Sarigollu, 2014), higher or lower revenue premiums could be a primary indication that measuring the customer mindset is necessary. A test marketing campaign with unexpected or inconclusive results can also provide reasons to reevaluate the customer mindset. As a next step, a survey could indicate what particular consumer perceptions and marketing activities have led to revenue fluctuations / test campaign outcomes. To further understand the reasons of these customer mindset changes in more depth, marketers could supplementarily employ qualitative methods such as projective techniques or laddering.

The combination of BEMMs for the customer mindset, market performance and financial performance will generate a holistic picture of brand value. Having this insight, the company can optimally plan its marketing activities so that they are in synergy with the existing brand equity and with the company's capabilities. Given the close interconnection between marketing and financial metrics, a main managerial advice is to ensure a cross-functional coordination between the marketing and financial departments (Fischer & Himme, 2017). In this way, managers can optimize the rate of return on investment, the brand portfolio, as well as the budget and structure of the marketing programs. On the one hand, increased investments in successful marketing programs lead to higher financial resources which can be further reinvested in strengthening brand equity. On the other hand, one of the benefits of brand equity is the ability to conduct marketing campaigns more efficiently, with lower costs, given the already increased brand salience and favorable brand attitudes (Keller & Lehmann, 2003). Therefore, profits could be reinvested in brand expansion, either through brand extensions, by reaching a previously neglected consumer segment or by entering a new internal or international market.

Simultaneously, it is important to understand the practical limitations of BEMMs which measure the customer mindset, market performance or the holistic brand value. Table 1 summarizes the main disadvantages of each method regarding: time, financial and human resources, complexity, subjectivity, accuracy, ambiguity, contextual limitations of use and generalizability of findings. By

combining several BEMMs, the limitations of one method can be counterbalanced by the strengths of another method. The potential inaccuracy and ambiguity resulting from the exploratory nature of qualitative techniques can be overcome by combining more qualitative techniques to potentially find overlapping insights. Further, the insights of qualitative techniques will be verified through surveys and comparative marketing campaign testing.

Finally, it is worth remaining aware that sometimes the act of measuring the customer mindset and the market performance can have a detrimental effect on *competitive brand differentiation*. By permanently comparing their brand to competition and using good practices such as benchmarking, tracking competitors and adapting to market dynamics, firms can unfortunately be blinded by a strong "herd effect". Brand-centered comparative methods - like benchmarking and blind tests - or the comparative nature of multidimensional scaling maps and even of financial valuation approaches can especially hinder creativity and differentiation. Permanently self-reporting to competitors generates an "imitation spiral", followed by all actors in an industry (Moon, 2010). For example, an Ariel product enhancement creates a strong pressure for the direct competitor Persil to copy the enhanced attribute.

In this way, brands end up forgetting the uniqueness of their own value proposition. Thus, instead of creating additional consumer value, brands compete to capture existing value. As a strategic alternative, brands should focus on discovering and capitalizing on their unique strengths, by using the presented qualitative techniques of measuring CBBE. The "weak" or "low" points in relation to competition could be compensated by enhancing the brand's strong attributes, as well as by identifying differentiating attributes and perceptual orientations not yet existent on the market, thus creating a unique and relevant value proposition. Specifically, brands can adopt a reverse positioning strategy and thus create a "blue ocean" which avoids direct competition (Moon, 2010; Cristea, 2014).

In conclusion, marketers should first of all be aware of the available BEMMs and their strategic role in accordance to the brand value chain. Secondly, they should review *the advantages and disadvantages* of each BEMM, their possible practical applications to specific contexts, as well as their strategic complementarity. Thus, they will be able to design and execute a more coherent, integrated, and efficient marketing research plan for periodically evaluating brand equity. Before designing this marketing research plan, it is also essential to clearly define the current external market context and economic context in which the brand equity measurement is performed, as well as the specific marketing objectives pursued by the brand equity measurement process. In this way it will be possible to choose and combine the optimal BEMMs for fulfilling the marketing and financial objectives of the organization.

References

- Aaker, D.A. (2012). *Building strong brands*. New York: Free Press.
- Aaker, J.L. (1999). The malleable self: The role of self-expression in persuasion. *Journal of Marketing Research*, 36(1), 45-57.
- Adhami, M. (2013). Using neuromarketing to discover how we really feel about apps. *International Journal of Mobile Marketing*, 8(1), 95-103.
- Ailawadi, K.L., Lehmann, D.R. & Neslin, S. A. (2003). Revenue premium as an outcome measure of brand equity. *Journal of Marketing*, 67(4), 1-17.
- Auspurg, K. & Hinz, T. (2015). Multifactorial experiments in surveys. In: M. Keuschnigg & T. Wolbring (Eds.). *Experimente in den Sozialwissenschaften* (pp. 294-320). Baden-Baden: Nomos.
- Bagna, E., Dicuonzo, G., Perrone, A. & Dell'Atti, V. (2017). The value relevance of brand valuation. *Applied Economics*, 49(58), 5865-5876.
- Baraybar-Fernández, A., Baños-González, M., Barquero-Pérez, Ó, Goya-Esteban, R. & de-la-Morena-Gómez, A. (2017). Evaluación de las respuestas emocionales a la publicidad televisiva desde el Neuromarketing. *Comunicar* 25, 19-28.
- Bartl, M., Kannan, V.K. & Stockinger, H. (2016). A review and analysis of literature on netnography research. *International Journal of Technology Marketing*, 11(2), 165-196.
- Belk, R.W. (2017). Qualitative research in advertising. *Journal of Advertising*, 46(1), 36-47.
- Belz, F.M. & Baumbach, W. (2010). Netnography as a method of lead user identification. *Creativity and Innovation Management*, 19(3), 304-313.

- Bercea, M.D. (2012). Anatomy of methodologies for measuring consumer behavior in neuromarketing research. In *Proceedings of the Lupcon Center for Business Research (LCBR) European Marketing Conference*. Ebermannstadt, Germany.
- Boisvert, J. & Ashill, N.J. (2018). The spillover effect of downward line extensions on US consumers' evaluation of a French luxury parent brand: The role of branding strategies, authenticity, and fit. *Psychology & Marketing*, 35(10), 740-751.
- Böger, D., Kottemann, P., Meißner, M. & Decker, R. (2017). A mechanism for aggregating association network data: An application to brand concept maps. *Journal of Business Research*, 79, 90-106.
- Brandt, C., De Mortanges, C.P., Bluemelhuber, C. & Van Riel, A.C. (2011). Associative networks: A new approach to market segmentation. *International Journal of Market Research*, 53(2), 187-207.
- Brand, B.M. & Rausch, T.M. (2021). Examining sustainability surcharges for outdoor apparel using Adaptive Choice-Based Conjoint analysis. *Journal of Cleaner Production*, 289, 125654.
- Brown, T.J., Dacin, P.A., Pratt, M.G. & Whetten, D.A. (2006). Identity, intended image, construed image and reputation: An interdisciplinary framework and suggested terminology. *Journal of the Academy of Marketing Science*, 34(2), 99-106.
- Chatterjee, S. (2019). Explaining customer ratings and recommendations by combining qualitative and quantitative user generated contents. *Decision Support Systems*, 119, 14-22.
- Chen, A.C.H. (2001). Using free association to examine the relationship between the characteristics of brand associations and brand equity. *Journal of Product & Brand Management*, 10(7), 439-451.
- Christensen, G.L. & Olson, J.C. (2002). Mapping consumers' mental models with ZMET. *Psychology & Marketing*, 19(6), 477-501.
- Christodoulides, G. & De Chernatony, L. (2010). Consumer-based brand equity conceptualization and measurement: A literature review. *International Journal of Research in Marketing*, 52(1), 43-66.
- Cian, L. (2011). How to measure brand image: a reasoned review. *The Marketing Review*, 11(2), 165-187.
- Coupland, J.C. (2005). Invisible brands: an ethnography of households and the brands in their kitchen pantries. *Journal of Consumer Research*, 32(1), 106-118.
- Crawford, C.M. (1985). A new positioning typology. *Journal of Product Innovation Management: An International Publication of the Product Development & Management Association*, 2(4), 243-253.
- Cristea, A. (2014). Positioning strategies for obtaining and sustaining competitive advantage. *International Journal of Economic Practices and Theories*, 4(5), 894-902.
- Cristea, A., Căpățină, G. & Stoenescu, R.D. (2015). Country-of-origin effects on perceived brand positioning. *Procedia Economics and Finance*, 23, 422-427.
- Danes, J.E., Hess, J.S., Story, J.W. & York, J.L. (2010). Brand image associations for large virtual groups. *Qualitative Market Research: An International Journal*, 13(3), 309-323.
- Danes, J.E., Hess, J.S., Story, J.W. & Vorst, K. (2012). On the validity of measuring brand images by rating concepts and free associations. *Journal of Brand Management*, 19(4), 289-303.
- Datta, H., Ailawadi, K.L. & Van Heerde, H.J. (2017). How well does consumer-based brand equity align with sales-based brand equity and marketing-mix response? *Journal of Marketing*, 81(3), 1-20.
- De Andrade Silva, A.R., Bioto, A.S., Efraim, P. & de Castilho Queiroz, G. (2017). Impact of sustainability labeling in the perception of sensory quality and purchase intention of chocolate consumers. *Journal of Cleaner Production*, 141, 11-21.
- De Oliveira, M.O.R., Silveira, C.S. & Luce, F.B. (2015). Brand equity estimation model. *Journal of Business Research*, 68(12), 2560-2568.
- Dehdashti S.Z. & Bashirpour, M. (2019). Exploring conceptual map of attitudes against Chinese automotive brands by using ZMET. *Consumer Behavior Studies Journal*, 6(1), 149-169.
- Demirel, A. (2017). The use of brand concept maps and network analysis tools to examine brand associations networks: an abstract. In *Academy of Marketing Science Annual Conference* (pp.811-812). Cham: Springer.
- Dibb, S., Simkin, L., Pride, W.M. & Ferrell, O.C. (2016). *Marketing: concepts and strategies*. 7th ed. Hampshire: Cengage Learning.
- Dillon, W.R., Madden, T.J., Kirmani, A. & Mukherjee, S. (2001). Understanding what's in a brand rating: A model for assessing brand and attribute effects and their relationship to brand equity. *Journal of Marketing Research*, 38(4), 415-429.
- Divakaran, P.K.P. (2014). Community-aided brand concept maps: a new approach for eliciting brand association networks. In *Proceedings of the 2014 8th International Days of Statistics and Economics Conference* (pp. 1208-1217).

- Donoghue, S. (2000). Projective techniques in consumer research. *Journal of Consumer Sciences*, 28,47-53.
- Duguleană, L. & Duguleană, C. (2014). Brand valuation methodologies and practices. *Bulletin of the Transilvania University of Brasov. Series V: Economic Sciences*, 7(1), 43-52.
- Dzwigol, H. (2020). Innovation in marketing research: quantitative and qualitative analysis. *Marketing and Management of Innovations*, 1, 128-135.
- Dzyabura, D & Peres, R. (2020). *Visual elicitation of brand perception*. SSRN Paper no. 349653. Available at: <https://ssrn.com/abstract=3496538>.
- Farquhar, P.H. (1989). Managing brand equity, *Marketing Research*, 1(3), 24-33.
- Ferjani, M., Jedidi, K. & Jagpal, S. (2009). A conjoint approach for consumer-and firm-level brand valuation. *Journal of Marketing Research*, 46(6), 846-862.
- Fischer, M. & Himme, A. (2017). The financial brand value chain: how brand investments contribute to the financial health of firms. *International Journal of Research in Marketing*, 34(1), 137-153.
- Fischer, M., Du, R. & Hornig, T. (2018). How accurate are commercial brand valuation methods? In 2018 *Global Marketing Conference at Tokyo* (pp. 1453-1453).
- Florea, D.L., Munteanu, C.C. & Poștoacă, A.E. (2016). Integrating risk literacy into brand management. *Review of International Business and Strategy*, 26(2), 204-218.
- Fornerino, M. & d'Hauteville, F. (2010). How good does it taste? Is it the product or the brand? A contribution to brand equity evaluation. *Journal of Product & Brand Management*, 19(1), 34-43.
- Fuchs, C. (2008). *Brand positioning through the consumers' lens* (PhD Thesis, Vienna University).
- Fuchs, C. & Diamantopoulos, A. (2012). Customer-perceived positioning effectiveness: conceptualization, operationalization, and implications for new product managers. *Journal of Product Innovation Management*, 29(2), 229-244.
- Garg, R. & Chhikara, R. (2019). Power of the scent: exploring the role of sensory appeals on consumer product attitude. *Journal of Business & Management*, 25(2), 25-41.
- Gensler, S., Völckner, F., Egger, M., Fischbach, K. & Schoder, D. (2015). Listen to your customers: Insights into brand image using online consumer-generated product reviews. *International Journal of Electronic Commerce*, 20(1), 112-141.
- Green, P.E. & Srinivasan, V. (1990). Conjoint analysis in marketing: new developments with implications for research and practice. *Journal of Marketing*, 54(4), 3-19.
- Gu, F. & Lev, B. (2011). Intangible assets: Measurement, drivers, and usefulness. In *Managing knowledge assets and business value creation in organizations: Measures and dynamics* (pp. 110-124). IGI Global.
- Haire, M. (1950). Projective techniques in marketing research. *Journal of Marketing*, 14(5), 649-656.
- Hancock, C. & Foster, C. (2020). Exploring the ZMET methodology in services marketing. *Journal of Services Marketing*, 34(1), 48-58.
- Harrison, R.L. & Reilly, T.M. (2011). Mixed methods design in marketing research. *Qualitative Market Research: an International Journal*, 14(1), 7-26.
- Havlena, W., Cardarelli, R. & De Montigny, M. (2007). Quantifying the isolated and synergistic effects of exposure frequency for TV, print, and internet advertising. *Journal of Advertising Research*, 47(3), 215-221.
- Heinonen, K. & Medberg, G. (2018). Netnography as a tool for understanding customers: Implications for service research and practice. *Journal of Services Marketing*, 32(6), 657-679.
- Herz, M. (2010). Exploring consumers' brand image perceptions with collages-implications on data collection, data analysis and mixed method approaches. In: M. Secka (ed.), *Aktuelle Beiträge zur Markenforschung* (pp. 121-143). Gabler.
- Hoffer, B. & Bosch, V. (2007). Brand equity measurement with GfK price challenger. *Yearbook of Marketing and Consumer Research*, 5, 20-39.
- Huang, R. & Sarigöllü, E. (2014). How brand awareness relates to market outcome, brand equity and the marketing mix. In T.M. Choi (ed.), *Fashion branding and consumer behaviors* (pp. 113-132). New York: Springer.
- Hurley, R.A., Rice, J.C., Koefeld, J., Congdon, R. & Ouzts, A. (2017). The role of secondary packaging on brand awareness: Analysis of 2 L carbonated soft drinks in reusable shells using eye tracking technology. *Packaging Technology and Science*, 30(11), 711-722.
- Ilicic, J. & Webster, C.M. (2015). Consumer values of corporate and celebrity brand associations. *Qualitative Market Research: An International Journal*, 18(2), 164-187.
- International Organization for Standardization (2010). ISO 10668:2010. *Brand valuation – Requirements for monetary brand valuation*. Available at: <https://www.iso.org/standard/46032.html>

- Isberg, S. & Pitta, D. (2013). Using financial analysis to assess brand equity. *Journal of Product & Brand Management*, 22(1), 65-78.
- Jain, P., Gyanchandani, M. & Khare, N. (2016). Big data privacy: a technological perspective and review. *Journal of Big Data*, 3(1), 1-25.
- John, D.R., Loken, B., Kim, K. & Monga, A.B. (2006). Brand concept maps: a methodology for identifying brand association networks. *Journal of Marketing Research*, 43(4), 549-563.
- Joshi, A. & Hanssens, D.M. (2018). The direct and indirect effects of advertising spending on firm value. In M. Hanssens (ed.), *Long-term impact of marketing: a compendium* (pp. 521-556). World Scientific.
- Jin, B., Park, J.Y. & Ryu, J.S. (2010). Comparison of Chinese and Indian consumers' evaluative criteria when selecting denim jeans: A conjoint analysis. *Journal of Fashion Marketing and Management: An International Journal*, 14(1), 180-194.
- Juárez-Varón, D., Tur-Viñes, V., Rabasa-Dolado, A. & Polotskaya, K. (2020). An adaptive machine learning methodology applied to neuromarketing analysis: prediction of consumer behaviour regarding the key elements of the packaging design of an educational toy. *Social Sciences*, 9(9), 162.
- Kapferer, J.N. (2012). *The new strategic brand management: Advanced insights and strategic thinking*. 5th ed. Philadelphia: Kogan Page.
- Kapoor, H. & Heslop, L.A. (2009). Brand positivity and competitive effects on the evaluation of brand extensions. *International Journal of Research in Marketing*, 26(3), 228-237.
- Keller K.L. & Lehmann D.R. (2003). How do brands create value, *Marketing Management*, 12(3), 26-31.
- Keller K.L. (2013). *Strategic brand management - Building, measuring and managing brand equity*. Global ed. 4th ed. New Jersey: Prentice Hall.
- Keller, K.L. (2016). Reflections on customer-based brand equity: perspectives, progress, and priorities. *AMS Review*, 6(1), 1-16.
- Keller K.L. & Swaminathan, V. (2020). *Strategic brand management - Building, measuring and managing brand equity*. Global ed. 5th ed. Harlow: Pearson.
- Keller, K.L. & Brexendorf, T.O. (2019). Measuring brand equity. In F.R. Esch (ed.). *Handbuch Markenführung*, 1409-1439. Springer.
- Kerin, R. & Hartley, S. (2021). *Marketing*. 15th ed. McGraw Hill.
- Kokthi, E. & Kruja, D. (2017). Customer based brand equity analysis: an empirical analysis to geographical origin. In P. Michelberger (ed.), *Management, enterprise and benchmarking in the 21st century IV* (pp. 171-182). Budapest: Obuda University.
- Koll, O., Von Wallpach, S. & Kreuzer, M. (2010). Multi-method research on consumer-brand associations: Comparing free associations, storytelling, and collages. *Psychology & Marketing*, 27(6), 584-602.
- Kwak, H.S., Jung, H.Y., Kim, M.J. & Kim, S.S. (2017). Differences in consumer perception of Korean traditional soybean paste (Doenjang) between younger and older consumers by blind and informed tests. *Journal of Sensory Studies*, 32(6), e12302.
- Lee, A.Y. (2002). Effects of implicit memory on memory-base versus stimuli-based brand choice, *Journal of Marketing Research*, 39(4), 440-454.
- Lee, J. L., James, J. D. & Kim, Y. K. (2014). A reconceptualization of brand image. *International Journal of Business Administration*, 5(4), 1-11.
- Lee, N., Broderick, A.J. & Chamberlain, L. (2007). What is 'neuromarketing'? A discussion and agenda for future research. *International Journal of Psychophysiology*, 63(2), 199-204.
- Lee, T.Y. & Bradlow, E.T. (2011). Automated marketing research using online customer reviews. *Journal of Marketing Research*, 48(5), 881-894.
- Lim, W.M. (2018). Demystifying neuromarketing. *Journal of Business Research*, 91, 205-220.
- Ling, I.L., Yang, C.M., Liu, Y.F. & Tsai, Y.H (2009). Penetrating adolescents' mental models of mp3 with ZMET. *Adolescence*, 44(176), 946-963.
- Meissner, M., Kottemann, P., Decker, R. & Scholz, S.W. (2015). The benefits of computer-based brand concept mapping. *Schmalenbach Business Review*, 67(4), 430-453.
- Méndez, J.L., Oubina, J. & Rubio, N. (2011). The relative importance of brand-packaging, price and taste in affecting brand preferences. *British Food Journal*, 113(10), 1229-1251.
- Mercado-González, J., Gutiérrez-Marines, C. & Reyes-Mercado, P. (2018). A ZMET study of real meanings on virtual experiences in young consumers: an abstract. In *Academy of Marketing Science Annual Conference* (pp. 91-92). Springer, Cham.

- Miles, S. & Rowe, G. (2004). *The laddering technique*. In: Breakwell, G. (ed.) *Doing social psychology research* (pp. 305-343). BPS & Blackwell Publishing.
- Morais, R.J. (2020). Inspiring brand positionings with mixed qualitative methods. *Journal of Business Anthropology*, 9(2), 251-274.
- De Meulenaer, S., Dens, N. & De Pelsmacker, P. (2015). Which cues cause consumers to perceive brands as more global? A conjoint analysis. *International Marketing Review*, 32(6), 606-626.
- Mizik, N. & Jacobson, R. (2008). The financial value impact of perceptual brand attributes, *Journal of Marketing Research*, 45(1), 15-32.
- Mizik, N. (2014). Assessing the total financial performance impact of brand equity with limited time-series data. *Journal of Marketing Research*, 51(6), 691-706.
- Moisander, J., Närvänen, E. & Valtonen, A. (2020). Interpretive marketing research: using ethnography in strategic market development. In *Marketing Management* (pp. 237-253). Routledge.
- Moisescu, O.I., 2007. *A conceptual analysis of brand evaluation*. MPRA paper 32017, pp.93-98. University Library of Munich.
- Moon Y. (2010). *Different - Escaping from the competitive herd*, New York, NJ: Crown Business.
- Mothersbaugh, D.L., Hawkins, D.I., Kleiser, S.B., Mothersbaugh, L.L. & Watson, C.F. (2020). *Consumer behavior: Building marketing strategy*. 14th ed. New York: McGraw-Hill.
- Moya, I., García-Madariaga, J. & Blasco, M.F. (2020). What can neuromarketing tell us about food packaging? *Foods*, 9(12), 1856.
- Munteanu C.C. & Florea D.L. (2012). A critical analysis of brand equity evaluation methods. *Journal of Economic-Financial Theory and Practice*, 3, 254-260.
- Nam, H., Joshi, Y.V. & Kannan, P.K. (2017). Harvesting brand information from social tags. *Journal of Marketing*, 81(4), 88-108.
- Nascimento, A.V.S.D. (2019). *Técnicas projetivas e a sua importância para os estudos do Branding sensorial e constituição de imagem de marca: a utilização do Zmet no caso Unimed Noroeste/RS* (Master Thesis, Universidade General do Noroeste).
- Orme, B.K. (2006). *Getting started with conjoint analysis: strategies for product design and pricing research*. Madison, WI: Research Publishers.
- Pastor, D., Glova, J., Lipták, F. & Kovac, V. (2017). Intangibles and methods for their valuation in financial terms: Literature review. *Intangible Capital*, 13(2), 387-410.
- Peterson, R.A. & Jeong, J. (2010). Exploring the impact of advertising and R&D expenditures on corporate brand value and firm-level financial performance. *Journal of the Academy of Marketing Science*, 38(6), 677-690.
- Pileliene, L. & Grigaliunaite, V. (2017). The effect of female celebrity spokesperson in FMCG advertising: neuromarketing approach. *Journal of Consumer Marketing*, 34(3), 202-213.
- Plumeyer, A., Kottemann, P., Böger, D. & Decker, R. (2019). Measuring brand image: a systematic review, practical guidance and future research directions. *Review of Managerial Science*, 13(2), 227-265.
- Quach, S., Thaichon, P., Lee, J.Y., Weaven, S. & Palmatier, R.W. (2020). Toward a theory of outside-in marketing: Past, present, and future. *Industrial Marketing Management*, 89, 107-128.
- Petrescu, M. & Lauer, B. (2017). Qualitative marketing research: The state of journal publications. *The Qualitative Report*, 22(9), 2248-2287.
- Rahman, K. & Areni, C.S. (2016). The benefits of quantifying qualitative brand data: a mixed-method approach for converting free brand associations to a brand equity index. *International Journal of Market Research*, 58(3), 421-450.
- Ramjaun, T.R. (2021). Experimenting with ZMET: Issues and adaptations. *The Qualitative Report*, 26(5), 1633-1640.
- Rao, V.R. (2014). *Applied conjoint analysis*. New York: Springer.
- Reyes Reina, D. (2013). Ethnography in the brand studies: a literature review. *Pensamiento & Gestión*, 34, 211-234.
- Reynolds, T.J. & Olson, J.C. (Eds.). (2001). *Understanding consumer decision making: the means-end approach to marketing and advertising strategy*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Ritson, M., 2015. What is the point of brand valuations if those doing the valuing are so off target *Marketing Week*, Available at: www.marketingweek.com/2015/04/22/

- Rosado-Pinto, F., Loureiro, S.M.C. & Bilro, R.G. (2020). How brand authenticity and consumer brand engagement can be expressed in reviews: a text mining approach. *Journal of Promotion Management*, 26(4), 457-480.
- Salehi, S., Sanayei, A., Sammaknejad, N. & Kazemi, A. (2021). Application of eye-tracking in assessing the role of mediator variable (brand awareness) in the relation between packaging elements and customers' choice. *International Journal of Business Excellence*, 25(1), 1-20.
- Salinas, G. (2011). *The International Brand Valuation Manual: A complete overview and analysis of brand valuation techniques, methodologies and applications*. John Wiley & Sons.
- Salinas, G. & Ambler, T. (2009). A taxonomy of brand valuation practice: Methodologies and purposes. *Journal of Brand Management*, 17(1), 39-61.
- Schiffman, L.G. & Wisenblit, J. (2019). *Consumer behavior*. Global ed. 12th ed. Harlow: Pearson.
- Schnittka, O., Sattler, H. & Zenker, S. (2012). Advanced brand concept maps: A new approach for evaluating the favorability of brand association networks. *International Journal of Research in Marketing*, 29(3), 265-274.
- Schroll, R. (2019). *Comparing free associations and brand concept maps* (PhD Thesis, University of Innsbruck).
- Scott, L.M. & Vargas, P. (2007). Writing with pictures: toward a unifying theory of consumer response to images. *Journal of Consumer Research*, 34(3), 341-356.
- Shamma, H.M. & Hassan, S.S. (2011). Integrating product and corporate brand equity into total brand equity measurement. *International Journal of Marketing Studies*, 3(1), 11-20.
- Siergiej, E. & Eason, K. (2009). Intimate advertising: A study of female emotional responses using the ZMET. *Explorations*, 108-116.
- Skaggs, P. (2010). Ethnography in product design-looking for compensatory behaviors. *Journal of Management and Marketing Research*, 3, 1.
- Singh, S. (2020). Impact of neuromarketing applications on consumers. *Journal of Business and Management*, 26(2), 33-52.
- Spinelli, S., Masi, C., Zoboli, G.P., Prescott, J. & Monteleone, E. (2015). Emotional responses to branded and unbranded foods. *Food Quality and Preference*, 42, 1-11.
- Srinivasan, V., Park, C.S. & Chang, D.R. (2005). An approach to the measurement, analysis, and prediction of brand equity and its sources. *Management Science*, 51(9), 1433-1448.
- Stancu, S., Constantin, A. M., Cristea, A. & Cristea, N. (2021). Modelling the interdependences between brand logo design and consumers' perceptions regarding brand personality dimensions. *Economic Computation & Economic Cybernetics Studies & Research*, 55(1), 269-283.
- Stefani, G., Romano, D. & Cavicchi, A. (2006). Consumer expectations, liking and willingness to pay for specialty foods: do sensory characteristics tell the whole story? *Food Quality and Preference*, 17(1-2), 53-62.
- Swait, J., Erdem, T., Louviere, J. & Dubelaar, C. (1993). The equalization price: A measure of consumer-perceived brand equity. *International Journal of Research in Marketing*, 10(1), 23-45.
- Terblanche-Smit, M., van Huyssteen, L. & du Preez, R. (2016). Advertising execution styles matter - a fear-based experiment on attitude, susceptibility, efficacy and behaviour. In: Looking forward, looking back: drawing on the past to shape the future of marketing (pp. 116-126).
- Thompson, C.J., Rindfleisch, A. & Arsel, Z. (2006). Emotional branding and the strategic value of the doppelgänger brand image. *Journal of Marketing*, 70(1), 50-64.
- Toklu, İ.T. (2017). Consumer preferences for the attributes of sunflower oil: An exploratory study with conjoint analysis. *International Journal of Academic Research in Business and Social Sciences*, 7(1), 39-55.
- Tuominen, P. (1999). Managing brand equity. *Finnish Journal of Business Economics*, 1(99), 65-100.
- Valencia, E. (2017). Neuromarketing step by step: Based on scientific publications. In M.A. Dos Santos (ed.), *Applying neuroscience to business practice* (pp. 18-48). IGI Global.
- Van Grinsven, B. & Das, E. (2016). Logo design in marketing communications: Brand logo complexity moderates exposure effects on brand recognition and brand attitude. *Journal of Marketing Communications*, 22(3), 256-270.
- West, H. (2014). A chain of innovation: the creation of Swiffer. *Research-Technology Management*, 57(3), 20-23.
- Vidal, L., Ares, G. & Giménez, A. (2013). Projective techniques to uncover consumer perception: Application of three methodologies to ready-to-eat salads. *Food Quality and Preference*, 28(1), 1-7.

Xun, J. & Reynolds, J. (2010). Applying netnography to market research: The case of the online forum. *Journal of Targeting, Measurement and Analysis for Marketing*, 18(1), 17-31.