Clear, yet ambiguous - Pictures in Brand Research

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Abstract The complexity of images makes them particularly suitable for implicitly measuring brands from a customer perspective. The approach developed by Produkt + Markt embraces the ambiguity of images as a challenge and uses a probability model to map these image attributes to verbal dimensions based on the basal dimensions of the Zürcher Modell. The model is underpinned by a validation procedure that is self-refining and automatically responds to new developments. The emotions, motives and attitudes that are key to measuring a brand can thus be captured with greater clarity and precision than would be possible with conventional methods.

Pictures present a means to implicitly measure emotions, motives, and affective attitudes towards advertisements or brands. Particularly the respondents' intuitive access to the pictures is considered a crucial benefit. But what exactly does one measure by using pictures? After all, pictures are often interpreted in many different ways, depending on the context. Hence the pictures' ambiguity always presents a challenge.

If the ambiguity of each individual picture is known, this vagueness may be compensated when measuring the image properties. When it comes to examining the complexity of brand perception from the customers' point of view, pictures are considered to be of added value in market research, despite or especially because of their ambiguity.

Produkt + Markt has developed a picture-based measuring model for brands. This model accepts the complexity of visual stimuli as its challenge and focuses on the intuitive assessment of brands by means of pictures.

Pictures in Brand Research

The assessment of pictures as a means to implicitly measure emotions, motives, and attitudes – which are important in brand measurement – turns out to be quite

ambivalent. Although the use of pictures holds valuable advantages for brand measurement, their use also leads to rather significant hurdles and limitations.

According to Schlegel, arguments for the use of pictures in market research are:

- Easy access to unconscious sensations or to those that are difficult to put into words.
- Pictures are especially suitable to assess low-involvement products, since it is rather difficult to measure faintly perceived impressions by means of verbal scales.
- People with little affinity for language react to pictures more easily.
- Pictures are usually considered to be more stable in terms of intercultural aspects; therefore they may also be used in international studies in order to avoid translation errors.
- Respondents perceive interviews that contain pictures as more interesting. As a result they are better motivated to answer questions.

The challenges imposed by the use of pictures are:

- Pictures are often ambiguous; therefore it is rather difficult to interpret the association of a picture with a brand without any additional information.
- The selection and validation of pictures often requires a lot of time and money.
- Up until now, pictures have not been sufficiently examined and used; hence the validity of measurements involving the use of images is questioned.
- Pictures seem to be less suitable for product categories that involve rationally-based brand selections which are usually accompanied by intensive cognitive processes.
- Pictures antiquate: Pictures that are currently associated with high-tech and modernity, may already be perceived as old-fashioned and outdated after a few short years - as a consequence, pictures require continuous updates.

Due to the ambivalence in the views on the use of pictures in market research, it is essential to be particularly careful with the selection and validation of the pictures. Since the process of selecting and validating pictures is usually considerably costly and time-consuming, Bosch, Schiel, and Winter developed a standardised scale to measure emotional brand dimensions in order to reduce the burden. The scale consists of twelve emotions that are measured based on three images each. The standardised approach

claims to be applicable for more than one product and to be independent from set of brands used.

However, Schlegel does point out the limits of standardised picture scales, since the selected pictures are not necessarily suitable for all product and service categories. Hence, she stresses the importance of being able to make specific adjustments to sets of images contingent on the product category. We can clearly confirm this based on the knowledge we gained during the validation process.

Validating Pictures

We used the basic concept of standardised picture scales and interpreted it more flexibly. The basic model assumes that a picture cannot only be attributed to a property dimension, but that the attribution to a dimension actually occurs with a specific probability.

These probabilities are not set in stone; they may change based on selection criteria, e.g. certain product categories. Depending on the product category, the market researcher is able to choose particular sets of images from the so-called Valid Gallery (short VAL|**LERY)**, which measure the relevant positioning dimensions for a specific set of brands. Images not suitable for a certain product category are excluded. For example, a picture of a sports car can only be used to capture *Dynamism*, if the subject of the study isn't automotive brands.

The selection and validation was conducted in a multi-stage process.

The basis for the picture sets was formed during the development stage. The goal was to gather a selection of pictures that was as valid as possible. Produkt + Markt's realisation model, which is based on the three basal dimensions of the *Zürcher Modell* by Bischoff, served as a regulatory framework for the concept categories. The three dimensions of the model are *Dominance*, *Balance*, and *Excitation*. These were subsequently divided into a larger number of additional sub-dimensions.

Several focus groups and an online community were set up for a few weeks in order to identify images representing certain terms. Several employees from different departments of Produkt + Markt were trusted with the task to select images that would best describe the predefined brands. The selection was conducted by perusing several image databases and various terms. Over all, a pool of a several thousand pictures was sifted in this process, and about 1000 images were selected and pre-classified.

First of all, the number of images was reduced over the course of several internal studies. The evaluated criteria included the free associations with the pictures as well as the assisted attribution of the pictures to intended terms. It turned out that the assisted attribution of pictures can only be considered as a criterion to a certain extent.

For instance, Fig. 1 shows the example of a picture which works particularly well for the dimension *Youthfulness* in assisted surveys, since more than 75 percent of the respondents attribute the picture to the term *youthfulness* when assisted. However, looking at the results of the free associations on the other hand (depicted in a tag cloud), one quickly sees that the picture rather represents *joy, fun or friendship*, while *youthfulness* appears to be trailing far behind.

The pictures that were still left after the internal test were then tested again in two nationwide, representative surveys (n = 1,000 and 1,500), following the same procedure as the internal studies. These surveys considered so-called brand congruency as an additional criterion. There it was examined whether the verbal stimulus (i.e. dynamism) is equally attributed to a brand as the corresponding picture. The response time was measured for both stimuli so that one could assume that they were being attributed to the brands intuitively for the most part. Pictures were weeded out when they did not produce a certain level of matching results, since it remained unclear what those images had actually measured.

As a result of the development stage there are now about 150 validated images available, including their respective probabilities of attribution for the more than 20 dimensions of the realisation model, which may be utilised to position a brand.

Validation parallel to the project

A static set of images is not able to meet different study-specific needs that arise from changing demands in terms of image interpretation and imagery. Therefore, a valid picture gallery requires continuous review and adjustments whenever necessary. The concept of the self-validating picture gallery was developed for this purpose. Every project using VAL|**LERY** allery includes the following steps:

Provision and image selection

Based on a requirement profile – which usually lists some dimensions from the realisation model as well as additional criteria, for example the target group or product category – VAL|**LERY** provides the best suitable images. Usually, a subset of the images provided is eventually used for the particular project. If necessary, additional images may be added as well. In this process, VAL|**LERY** distinguishes between pictures that are exclusively used in the current project, and pictures that are supposed to be available for other projects as well.

Use of images during the project

In this step, the pictures are usually attributed to products, brands, or situations. This is the main process. The central focus is on the respondents' intuitive access to the pictures. The only verbal information provided are the task descriptions.

Reviewing the images

In the next step, the images used are verbally classified in order to review their characteristic attributes. This classification may be conducted either directly for each picture (for example “Please describe why you have chosen this particular picture.”) or in association with a product (for example “Please describe why you attributed these pictures to Product X.”).

The current quality of each picture determines whether and to which extent classification is needed. Hence, newly submitted pictures always require classification. In contrast, established images are not used too frequently for classifications anymore.

Each image is newly assessed for each project that uses a validated gallery, Furthermore, the probabilities of attribution to the existing dimensions is calculated anew for each picture as well.

Experience to Date

After the fundamental validation process, the pictures from the validated gallery were used to capture the brand promise of several sporting goods and household brands. The goal was to gather additional information about whether the pictures could be used for different product groups. Afterwards, the applicability was examined for particular target groups, e.g. the pharmaceutical and agricultural sector in national and international studies (e.g. in China).

Based on our experience to date, we are able to state that the images proved to be reliable for implicit measurements of brand promises. However, some pictures have also lead to surprising results, which again emphasise pictures’ ambiguity and the consequent problems in interpreting pictures when measuring brand promises.

Figure 2 shows some examples of positive and negative results.

- The **winners’ rostrum:** So far, this picture has been assessed as representing Victory or Success in every product category in every country. There is a very high probability that this picture will be associated with the dimensions Success and Quality.
- The **bike helmet** is attributed to a fairly large number of dimensions. Of course, Safety proves to have the highest probability of attribution, but the dimensions Order, Quality, Environmental Awareness, and Frugality follow close behind.
- The **money sock** is interpreted by some respondents as a symbol for Frugality, while others see it as symbolising Expensive and Luxury. Since these dimensions virtually contradict each other, this picture cannot be used for any of these dimensions.

Overall, it can be said that the chosen procedure yields great results when measuring brands. Some pictures can be used across all product categories so far examined. Ambiguous images can still be used to measure brands, since the validation process provides sufficient information on their ambiguity. Additionally, in any particular study, it is also possible to identify pictures that are not suitable to measure brands; as a consequence, they are excluded from the analysis in the study involved.

Image-based Market Research for Homeware Brands

In March 2013, 500 people from a representatively selected nationwide sample were interviewed about different household brands. The respondents were asked to attribute images as well as to provide a verbal explanation as to why they had chosen the respective images for the brand.

In order to receive an initial result, one can create an image cloud displaying the pictures attributed to a brand proportionately to their respective attribution probability. The image cloud depicted in fig. 3 enables one to grasp at first glance how the target group interviewed perceives the brand.

The bigger the pictures are displayed in the image cloud, the more frequently they have been attributed to the brand in question. The respondents' verbal explanations for their image selection may serve as an additional aid to interpretation. In fig. 4, the verbal explanations have been summarised in a word cloud.

Positioning both the verbal explanations and the images within a common scope of properties may facilitate interpretation as well. For example, fig. 5 shows the result of a multidimensional scaling of pictures and verbal dimensions.

One is now able to see in fig. 5 which verbal and visual dimensions essentially represent the household brand examined. The closer a term and a picture are positioned to each other, the more likely they measure the same dimension. The herein examined brand thus stands for Order, Sustainability, Success, Quality, and Tradition.

In order to ensure that pictures can be used for the qualitative as well as quantitative analysis in the brand positioning alike, it is advisable to exactly translate the visual dimensions into verbal dimensions.

Additionally, the meanings of the applied dimensions from the realisation model are calculated based on VAL|**LERY's** attribution probabilities and the pictures' selection probabilities. This enables us to derive the brand positioning for the household brand examined. As fig. 6 shows, Brand A and Brand B differ from each other especially within the dimensions Order, Quality, and Luxury as well as Tradition.

The dimension Tradition is a remarkable case: when designing the study, it was assumed that Tradition would not really have a strong significance in discriminating between the brands, and therefore Tradition was not even supposed to be measured

with respective pictures at all. However, its self-validation allowed us to identify and quantify the latent variable *Tradition* as an important dimension of perception.

Conclusion

From the experience gathered so far, we are able to clearly conclude that it is possible to implicitly measure brands by means of pictures almost without restrictions. Yet, the idea of attributing an image to exactly one brand dimension still fails; it does not live up to the possibilities of picture scales. Nevertheless, this is not due to the images themselves, but rather due to the misconception that verbal dimensions are clear and distinct as well. Just like it is virtually impossible to describe a dimension with just one image, the same is true for the opposite case; it is also impossible to describe a picture with just one verbal dimension.

In order to actually measure a brand by using pictures, it is necessary to connect the visual and verbal dimensions by means of a probability model, which allows one to translate the information collected through images into verbal dimensions. As a result, market researchers and the brand management are able to grasp the brand position, and are therefore also able to handle it accordingly.

Our experience shows that pictures strongly discriminate. Therefore, it is also possible to clearly identify the differences in the positioning of very similar brands during the measurement.

Additionally, pictures allow for a more dynamic and more diversified survey design – even if presentations are just graphically enhanced, since the brand position may be expressed visually by creating an image cloud. This enables us to vividly show how the brand is perceived by the respective target group.

Figure 1: Free associations are an essential criterion to validate pictures.

Category	Sample image
The winners' rostrum Image works well for the product category as well as different countries.	
The bike helmet Ambiguous image, but it can still be interpreted well.	
The money sock Contradicting interpretations of the image, therefore a malfunctioning picture.	

Figure 2: Level of suitability of some select images used in brand measurements

Figure 3: Image cloud representing a household brand

Figure 4: World cloud representing a household brand

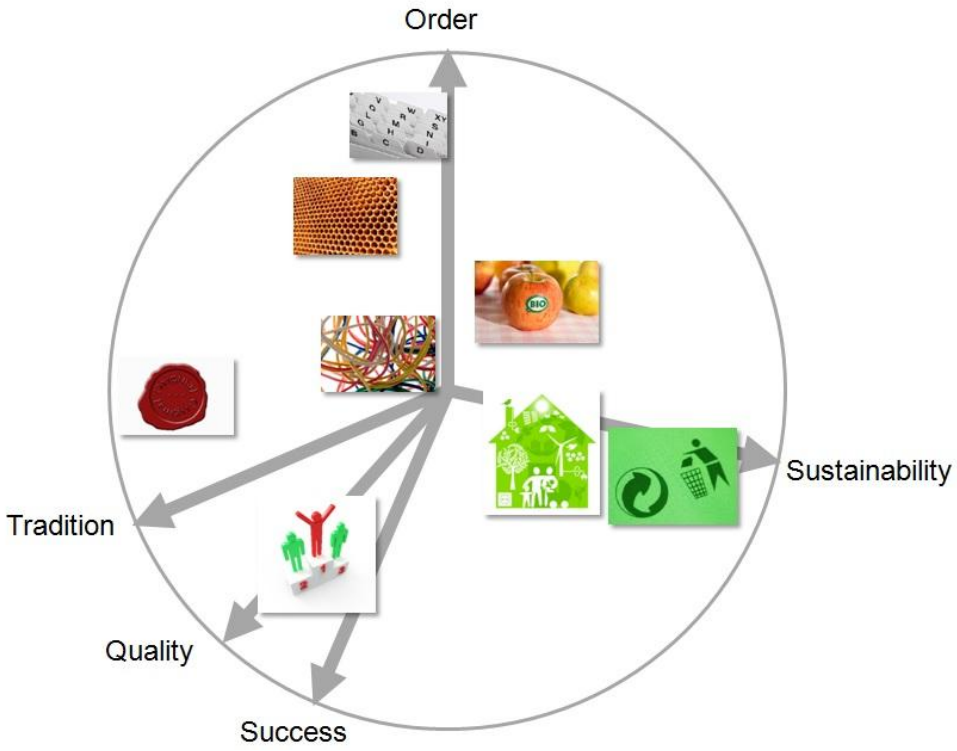

Figure 5: Simplified depiction of visual and verbal dimensions within a common scope of properties

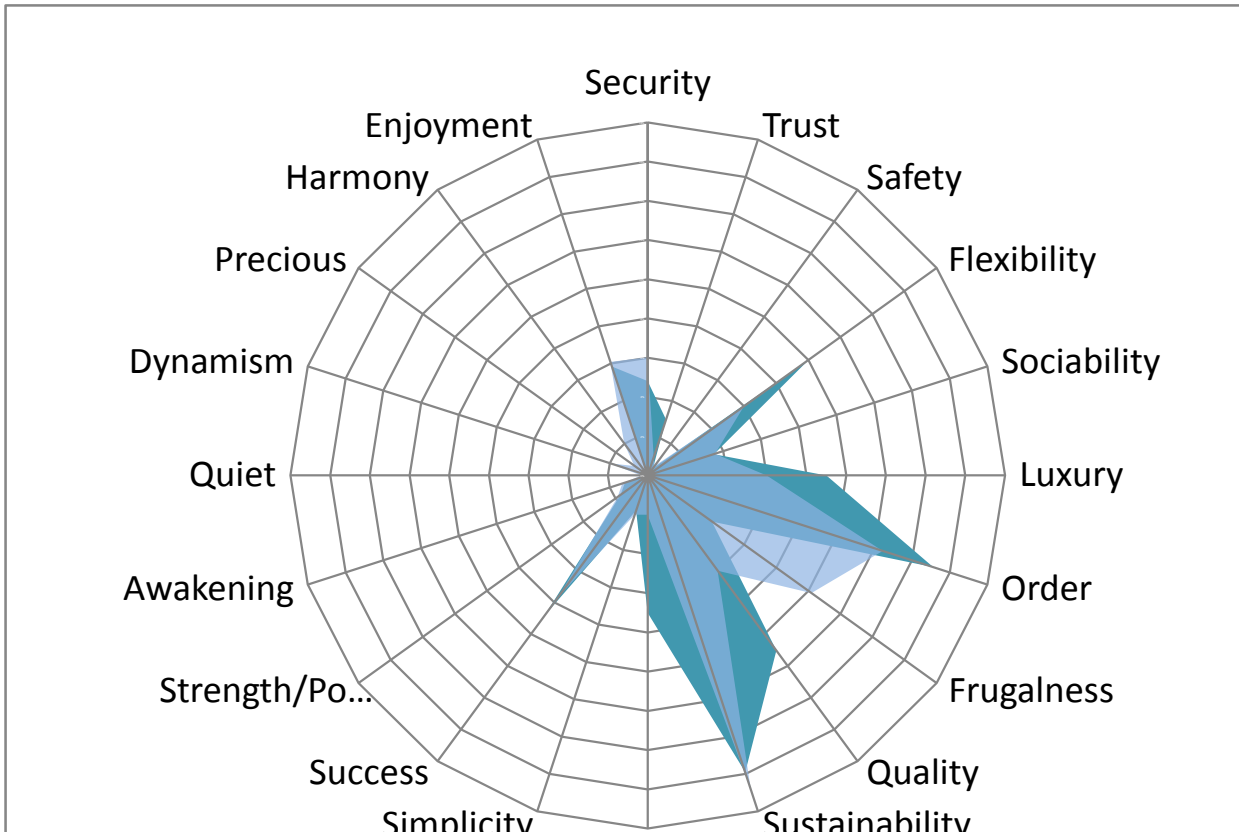

Figure 6: Network diagram depicting the properties of two household brands

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