

Development and Evaluation of a General Attribute Inventory for Music in Branding

Hauke Egermann,^{*1} Steffen Lepa[#], Andreas Schoenrock[#], Martin Herzog[#], Jochen Steffens[#]

^{*}York Music Psychology Group, Department of Music, University of York, UK; [#]Audio Communication Group, Technische Universität Berlin, Germany

¹ hauke.egermann@york.ac.uk www.ympg.uk www.abcdj.eu

1. INTRODUCTION AND GENERAL AIMS

Within marketing activities, **Audio Branding** describes the creative practice to use sound and music to form a long-term image of a brand in the mind of the consumer. The goal of a marketing strategist is to communicate specific meaning content. To conceptualize this scenario, the use of music in branding can be interpreted as a special case of sign-based communication (Figure 1). Hitherto, no **standardized measurement instrument**, that allows systematic assessment of music-induced associations relevant to the branding context, has been developed. The aim of the presented work was to collect and evaluate the newly developed General Music Branding Inventory (GMBI).

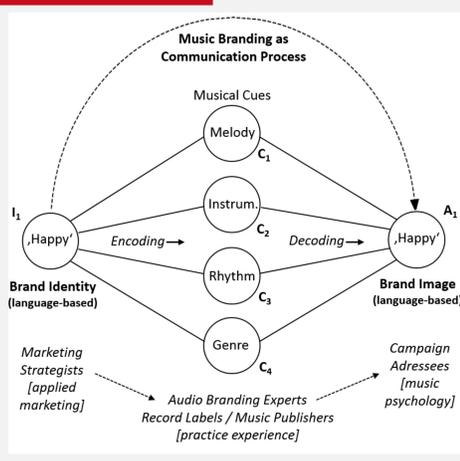


Figure 1: Music Branding as Communication Process

MULTI-STUDY APPROACH

Study	Aim
Literature Review	summarize the state of literature with respect to already existing terminologies
1. Music Branding Expert Workshop	find a consensus on the most important terms of the field in form of an adjective list that could be later turned into a psychometric instrument
2. Marketing Expert Online Survey	evaluate adjective list and select most relevant attributes
3. Multi-National Online Listening Experiment	test if adjectives are suitable to describe listener's experiences of music and reduce semantic redundancies

1. STUDY: MUSIC BRANDING EXPERT WORKSHOP

Participants:

Nine acknowledged international experts from audio branding agencies, music labels, music archives, and marketing participated in the four hour long workshop.

Procedure:

- Create a list of all expressive dimensions of music deemed relevant for music branding scenarios.
- Find 3-5 adjectives would that express each of these dimensions in English everyday language, in order to achieve the intended amount of semantic redundancy needed for psychological scales.

Results:

This resulted in the Music Branding Expert Terminology (MBET), a 132-terms-comprising list of English adjectives distributed across 18 dimensions (Table 1) that were deemed relevant by the experts as a consensus to concisely describe the expressive content of music in terms of marketing needs.

Dimension	Dimension Label
1	Emotional Expression
2	Emotional Valence
3	Emotional Energy
4	Complexity
5	Sophistication
6	Intellectuality
7	Traditionalism vs. Progressiveness
8	Inclusiveness vs. Exclusiveness
9	Conformity vs. non-Conformity
10	non-Conformity
11	Hedonism vs. Seriousness
12	Gender
13	Eros
14	Scale
15	Inspiration
16	Time Reference
17	Culture / Location Reference
18	Style Reference

Table 1: Dimensions of branding-relevant musical expression (Music Branding Expert Terminology)

2. STUDY: MARKETING EXPERT ONLINE SURVEY

Participants:

An online survey was conducted, addressing 305 English speaking marketing experts based either in Germany, Austria or Switzerland (age M=41, SD=13; 56.4% female). All participants exhibited a significant amount of professional branding experience (M=12 years, SD=11 years).

Procedure:

Participants were asked to choose 66 from the 132 adjectives which they deemed most relevant and important for marketing practice. Afterwards, they were asked to enter the brand they were most recently professionally preoccupied with and rate how strongly the previously chosen adjectives fit to this brand.

Results:

Data analysis indicated which 39 items were 1) sufficiently relevant (Table 2), 2) discriminatory, 3) redundant to form the basis of a psychometric scale for measuring music expression in the branding context.

However, we added to this selection 12 items that had been deemed relevant by the audio branding experts from the focus group. Altogether, this resulted in 51 items forming a preliminary psychometric scale (preliminary General Music Branding Inventory - preGMBI). This item list was then translated into German and Spanish by bilingual Audio Branding experts.

Table 2: preGMBI-Items and their relevance ratings

1	confident (70.82%)	27	integrating (61.97%)
2	loving (65.90%)	28	adventurous (56.72%)
3	friendly (79.02%)	29	familiar (75.08%)
4	honest (70.49%)	30	serious (82.62%)
5	trustworthy (60.66%)	31	playful (63.81%)
6	happy (80.98%)	32	funny (66.89%)
7	beautiful (80.33%)	33	male (30.82%)
8	soft (50.16%)	34	female (42.95%)
9	warm (74.10%)	35	passionate (72.79%)
10	bright (62.95%)	36	sexy (58.69%)
11	stimulating (72.79%)	37	crisp (55.08%)
12	relaxing (70.82%)	38	personal (81.97%)
13	chilled (54.43%)	39	inspiring (82.30%)
14	detailed (59.02%)	40	creative (83.61%)
15	simple (76.39%)	41	magical (64.92%)
16	pure (79.34%)	42	exciting (74.75%)
17	unique (77.03%)	43	futuristic (62.62%)
18	reflective (59.02%)	44	retro (56.39%)
19	intellectual (63.93%)	45	timeless (77.70%)
20	modern (83.93%)	46	contemporary (50.49%)
21	classic (73.44%)	47	urban (71.80%)
22	young (75.41%)	48	natural (82.95%)
23	innovative (81.64%)	49	authentic (87.54%)
24	solid (68.52%)	50	glamorous (63.93%)
25	fresh (84.26%)	51	cool (80.66%)
26	inviting (68.20%)		

3 STUDY: MULTI-NATIONAL ONLINE LISTENING EXPERIMENT AND ANALYSES

Participants:

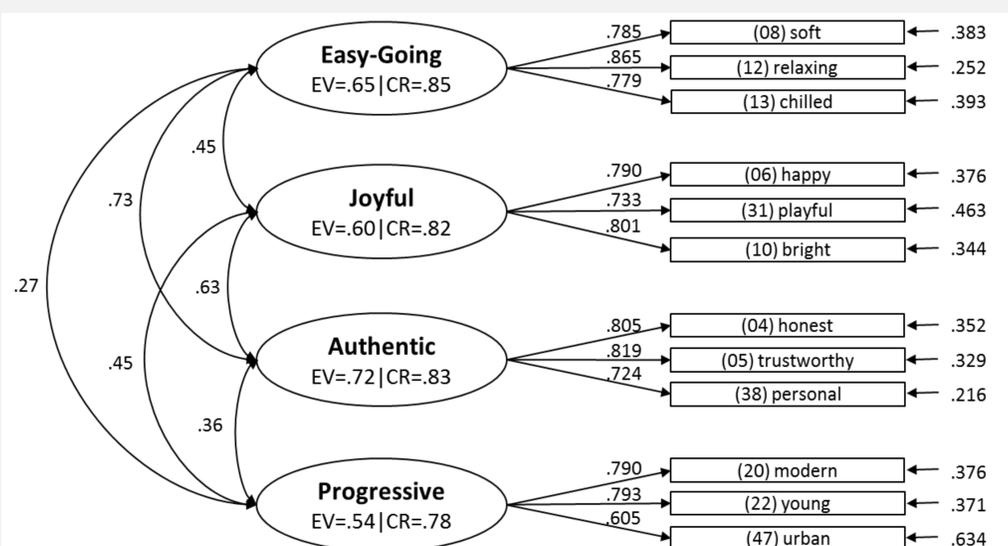
3,485 respondents were recruited from three different countries (UK, Spain, Germany), three different age cohorts (18-34; 35-51; 52-68 years), three different educational backgrounds (ISCED 0-2; 3-4; 5-8), and both genders (country-wise crossed-quotas).

Procedure:

We used 183 music titles in the selection pool, representing 10 different genres and 61 subgenres that had been cut into 30-second-long excerpts (typically comprising 1st verse and chorus). Participants had to rate four randomly assigned music excerpts by means of the preGMBI on a scale from "very bad fit" to "very good fit".

Results:

- An initial **exploratory factor analysis** used maximum likelihood estimation with robust standard errors and was programmed to give solutions for 1 to 10 factors. Results pointed towards a 6 factor structure in terms of the Kaiser-Criterion and towards a 1 or a 4 factor solution when inspecting the Scree-plot. After inspecting the factor loading matrices, we finally decided for the **4 factor solution** since it was the one with the least cross-loadings.
- We then started to develop a **common factor model** for musical expression out of the GMBI ratings by assigning each item fully to only one factor on basis of its highest loading. Finally, this resulted in 12 well-fitting items for the four factors. We estimated a multiple-group CFA with *language* as the grouping variable to check whether the found solution would hold across groups by stepwise entering invariance constraints. Despite some language differences, the metrically invariant solution (which exhibits identical item-loadings across groups, see figure 2) turned out to have a very good fit ($X^2=1679.078$; $df=168$; $p<0.01$; $RMSEA=.046$; $CFI=.970$; $SRMR=.046$). Hence we were able to produce a 4-dimensional GMBI scale with reliable factor scores and mostly medium-sized inter-correlations that can be used in covariance/regression analyses (though not in mean-comparisons) across the three countries.



MLR estimation (employing sandwich estimator for subject clusters); multiple-group model (UK, Spain, Germany) with metric invariance; standardized coefficients from UK solution

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