A "sonic branding" methodology for matching brand values to a sound logo: the Sennheiser case study

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Introduction

The points in question

Methodology

Results

Conclusion
Sonic branding (also called “Sound design”) consists in creating a single melody for a retail space, an advertisement or a website.

Tony Jazz & Mathieu Billon, On Air agency

The sound logo is the shortest format (5 or 6 musical notes) of sounds that recreates the brand identity.

Example:

Brand identity of INTEL:
• Logo:

  • Slogan: «Inspired innovation that’s changing the world»
  • Values: Innovation, Performance, Technology
Previously, brand communication was mainly focused on visual aspect. Music and sound were not used in a rational way.

Today, sound is taking on a new dimension in marketing.

Sonic branding is a new concern for companies.
Contents

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Conclusion
The points in question

- How to create a sound logo that is both characteristic and representative of a company?

- How to choose the sound logo that conveys brand values best?
- **Sound**: a complex stimulus.

<table>
<thead>
<tr>
<th>Uncontrollable factors</th>
<th>Controllable factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>The melody</td>
<td>The pitch</td>
</tr>
<tr>
<td></td>
<td>The tempo</td>
</tr>
<tr>
<td></td>
<td>The modes: minor and major</td>
</tr>
<tr>
<td></td>
<td>The instrument</td>
</tr>
<tr>
<td>The accompaniment</td>
<td>The instruments</td>
</tr>
<tr>
<td></td>
<td>The balance</td>
</tr>
</tbody>
</table>
Questionnaire

- Structure of the questionnaire:

1. Association of sound logos with corporate values

2. Briefing

3. Appropriateness of each sound logo to the brand with JAR emotion scales
   - Appropriateness mark of the logo to the brand
   - Textual: Why?

For you, what are the values that the company wishes to highlight through these different sound logos? (Check all that apply).

Presentation of brand identity and associated values

How do you assess the restitution of Sennheiser brand values by this sound logo?

- Cheerful
- Surprising
- Perfectly adapted
- Not adapted at all

<table>
<thead>
<tr>
<th></th>
<th>Sound 1</th>
<th>Sound 2</th>
<th>Sound 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>JAR</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>T</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Not</td>
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<td></td>
</tr>
<tr>
<td>Enough</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Just</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Too</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Far</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adapted</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Application of the methodology:

The Sennheiser case study
Case study: Sennheiser

- International brand but its sound logo is not very well known in France.
- Briefing presented to the panellists:

One of the biggest audio device manufacturers in the world, specialized in the production of microphones and headphones.

The Sennheiser's values are technology, independence and innovation.

This premium brand associates « elegance », high-technology and the highest capacity for innovation on the market.

The Sennheiser sound is a « different » sound, an « expert » sound which seduces the most professional and demanding music lovers.

- Created in 1945, head office in Germany.
- Family business with a passion for sound.
- A German company, expert in sound quality for more than 65 years.
- 2100 employees.
- 4 plants: 2 in Germany, 1 in Ireland, 1 in the USA.
- Brand present in 40 countries.
- Company sales: 468 million € in 2010.
Case study: Sennheiser

- Determining parameters for our versions of the sound logo:
  - Tempo (80, 120, 160)
  - Pitch (Octave 1, Octave 3, Octave 5)
  - Instruments (Accordion, Piano, Violin)

- Duration of the questionnaire: 20-25 min
  - 12 logos to listen to
  - 105 judges
## Values association

- 1\textsuperscript{st} part of the questionnaire: Selected company values

<table>
<thead>
<tr>
<th>Values</th>
<th>Opposite values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation</td>
<td>Traditional</td>
</tr>
<tr>
<td>Premium</td>
<td>Popular</td>
</tr>
<tr>
<td>Technology</td>
<td>Artisanal</td>
</tr>
<tr>
<td>International</td>
<td>Proximity</td>
</tr>
<tr>
<td>Sobriety</td>
<td>Passion</td>
</tr>
<tr>
<td>Fun</td>
<td>Serious</td>
</tr>
<tr>
<td>Simplicity</td>
<td>Complexity</td>
</tr>
<tr>
<td>Freedom</td>
<td>Conviviality</td>
</tr>
<tr>
<td>Performance</td>
<td>Human</td>
</tr>
</tbody>
</table>

- **Senheiser Values**
- **Other brand values**
3\textsuperscript{rd} part of the questionnaire: after the briefing

- Selected emotions in connection with Sennheiser:

<table>
<thead>
<tr>
<th>Emotions</th>
<th>Why?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious</td>
<td>International</td>
</tr>
<tr>
<td>Surprising</td>
<td>Innovation</td>
</tr>
<tr>
<td>Exciting</td>
<td>Technology</td>
</tr>
<tr>
<td>Sensual</td>
<td>Elegance</td>
</tr>
<tr>
<td>Joyful</td>
<td></td>
</tr>
<tr>
<td>Energetic</td>
<td>Other</td>
</tr>
<tr>
<td>Sad</td>
<td></td>
</tr>
<tr>
<td>Warm</td>
<td></td>
</tr>
</tbody>
</table>
Contents

- Introduction
- The points in question
- Methodology
- Results
- Conclusion
1 - Analysis of the values associated with sound logos (before briefing)

2- Analysis of the appropriateness of emotions with the sound logos (after briefing)

3 - Validation of the chosen version
1- Association to values (before briefing)

Textual Analysis

- Dataset:

<table>
<thead>
<tr>
<th>Panellist x Sound</th>
<th>Modalities</th>
<th>19 Values</th>
<th>Textual variable</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tempo, Pitch, Instrument</td>
<td>1 if the value has been selected, 0 if not</td>
<td>Selected values concatenated</td>
</tr>
</tbody>
</table>
# Association to values (before briefing)

## Textual Analysis

### Instrument
- Accordion
  - Popular
  - Artisanal
  - Traditional
  - Conviviality
  - Originality
  - Fun
- Piano
  - Sobriety
  - Humanity
  - Innovation
  - Simplicity
  - Freedom
  - Passion
- Violin
  - Complexity
  - Premium
  - Performance
  - Passion
  - Serious

### Pitch
- Octave 1
  - Serious
  - Sobriety
  - Artisanal
  - Traditional
- Octave 3
  - Conviviality
  - Popular
  - Freedom
- Octave 5
  - Technology
  - Innovation
  - Originality
  - Fun
  - Performance

### Tempo
- Tempo 80
  - Serious
  - Complexity
- Tempo 120
  - ----
- Tempo 160
  - Conviviality
  - Proximity
  - Fun
  - Originality
1- Association to values (before briefing)

**Multidimensional analysis**

- Dataset:

  - 27 Sounds
  - Values
  - Contingency table
  - Tempo, Pitch, Instrument
  - Modalities
1- Association to values (before briefing)

Multidimensional analysis

Original and funny sounds

Axis 2: Axis of serious

Serious and sober sounds

Technological and innovative sounds

Axis 1: Axis of innovation

Traditional and artisanal sounds

Values/Emotions

Sound logos

Experimental factors

*Sound logo V-80-1
means
Instrument: Violin - Tempo: 80 - Octave: 1
Results

1 - Analysis of the values associated with sound logos (before briefing)

2 - Analysis of the appropriateness of the emotions with the sound logos (after briefing)

3 - Validation of the chosen version
2- Appropriateness with emotions

Analysis of Variance

Analysis of variance:
Appropriateness mark ~ Panellist + Tempo + Pitch + Instrument + Interactions
## Principals Effects

<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>Critical Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pitch</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Octave 1 (low-pitched)</td>
<td>-0.32</td>
<td>5.82E-05</td>
</tr>
<tr>
<td>Octave 3 (Medium)</td>
<td>0.55</td>
<td>6.90E-12</td>
</tr>
<tr>
<td>Octave 5 (high-pitched)</td>
<td>-0.23</td>
<td>3.84E-03</td>
</tr>
<tr>
<td><strong>Instrument</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accordion</td>
<td>-1.05</td>
<td>3.02E-38</td>
</tr>
<tr>
<td>Piano</td>
<td>1.03</td>
<td>3.25E-36</td>
</tr>
<tr>
<td>Violin</td>
<td>0.03</td>
<td>7.44E-01</td>
</tr>
<tr>
<td><strong>Tempo</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>80</td>
<td>-0.67</td>
<td>4.40E-17</td>
</tr>
<tr>
<td>120</td>
<td>0.14</td>
<td>8.62E-02</td>
</tr>
<tr>
<td>160</td>
<td>0.54</td>
<td>1.67E-11</td>
</tr>
</tbody>
</table>

## Interactions

- Pitch ↔ Tempo
- Tempo ↔ Instrument

**Pitch ↔ Instrument**

<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>Critical Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pitch-5 : Accordion</td>
<td>0.48</td>
<td>2.15E-05</td>
</tr>
<tr>
<td>Pitch-3 : Violin</td>
<td>0.38</td>
<td>6.79E-04</td>
</tr>
<tr>
<td>Pitch-1 : Violin</td>
<td>0.23</td>
<td>4.38E-02</td>
</tr>
<tr>
<td>Pitch-3 : Accordion</td>
<td>-0.38</td>
<td>7.55E-04</td>
</tr>
<tr>
<td>Pitch-5 : Violin</td>
<td>-0.61</td>
<td>7.41E-08</td>
</tr>
</tbody>
</table>
2- Appropriateness with emotions

Multidimensional analysis

- Dataset:

  - JAR modalities for emotions
  - Tempo, Pitch, Instrument

  27 Sounds

  Contingency table

  Modalities
2- Appropriateness with emotions

Multidimensional analysis

CA factor map
(emotions and factors)

JAR emotions

Dim 1 (43.32%)
Dim 2 (29.39%)

Oct.3 Piano
Oct.5 Violin
Oct.1 Accordion

Factors:
- Too sad
- Not surprising enough
- Not energetic enough
- Too exciting
- Too energetic
- Not serious enough
2- Appropriateness with emotions

Multidimensional analysis

Sound logos map

Variables factor map (PCA)
2- Appropriateness with emotions

- Combination considered as the most appropriate

Instrument: Piano
Pitch: 3 (medium)
Tempo: 160

→ Does the favorite version retransmit Sennheiser values well?
1 - Analysis of the values associated with sound logos (before briefing)

2 - Analysis of the appropriateness of emotions with the sound logos (after briefing)

3 - Validation of the chosen version
3- Validation of the chosen version

Textual analysis by product

Instrument: Piano
Pitch: 3 (médiun)
Tempo: 160

Independently of Sennheiser brand identity

Innovation Freedom
3- Validation of the chosen version

Penalty analysis

- How to optimize the chosen version?
- Which emotions penalize the most?
  ➔ Penalty Analysis:
  Recoded into three levels JAR (Not enough - JAR - Too much)

Appropriateness mark ~ Joyful.Not_Enough + Joyful.Too_Much + Exciting.Not_Enough + (...)

P_160_3 x Judge

Complete disjunctive table

Appropriateness mark
3-Validation of the chosen version

Penalty analysis

Penalty Analysis (complete model)

Piano 160 Medium
Conclusion

- Original and controlled approach of sonic branding
  - Quantitative
  - Definition of experimental factors

- Questionnaire in two steps
  - Association of values without knowledge of the brand
  - Notion of appropriateness to a brand identity

- Association qualitative study ↔ quantitative study
  - Choice of the melody, of the arrangements
  - Melody optimization
Acknowledgments

- M. Sébastien LÊ
- Jessica MAGNIER (production of the sound logos)
- Sensometrics organizing team

Thank you for your attention