

Gender-specific music preferences at video ads

Oliver Wiesener, Trendelina Kryeziu
Hochschule der Medien, Stuttgart, Germany

Abstract

The meaning of online marketing and particularly of video ads can be seen as constantly growing. Additionally, there seems to be a visual overstimulation due to online banners, content and videos, for instance. As a consequence, the audio channel of a video ad can be seen as an opportunity to get the attention of consumers. To get this attention it appears to be reasonable to adapt the music of a video ad to the desired target group. Since video ads target often either woman or man the question arises, whether there are gender-specific differences in the music preference. This question will be answered by the current article based on a quantitative survey focussed on products from the food sector.

Motivation

Since video ads consist of the two channels video and audio it seems reasonable to use both channels to get the attention of consumers. In general, videos are able to present complex facts in a short time frame. In less than a tenth of a second humans are capable of understanding the meaning of a visual scene. As a consequence, the brain is able to process information 60.000 times faster than mere text (Semetko and Scammell 2012). Thus, video ads can be seen as a better way to increase the attention of consumers compared to pure text and graphics, for instance. Besides the visual aspect of video ads, music can be seen as the bearer of messages and feelings of all kinds because it communicates on a meta-level (Riggenbach 2000). Furthermore, the audio channel seems to be important due to the second screen syndrome. A study from students at the

Stuttgart Media University revealed that more than 90 per cent of young people use a second screen while watching TV or online videos. Subsequently, the only way to get back the attention can be seen in using the audio channel. Therefore, it appears to be recommendable to adapt the music of a video ad to the target group. Derived from that, the current article puts an emphasis on gender-based differences in music preferences. As a conclusion, the objective of this article is to test whether there are gender-specific preferences of music genres at video ads.

Theoretical background

Emotions can be influenced consciously and unconsciously by music. Furthermore, music is primarily used to attract attention and to call for positive feelings among consumers (Schober 2014). An appropriate music selection in advertising can assist to the success of an advert based on an alluring appearance to the audience. Music in conjunction with high consumer involvement can be effective since it consolidates beliefs about the product (Zander 2006). Furthermore, music is transporting and activating relevant information and thus, it is an effective way of information flow. North et al. (2004) have proven, that music in video ads can improve reminding of a specific product, a brand or an advertising message. That could be reached by using different music genres to highlight different product information, for instance.

Adjusting marketing activities to gender-specific aspects is typically referred to gender marketing. As an example, Jaffé (2005) defines gender marketing as marketing of products differentiated by sex. It considers differences in natural capabilities and related needs between women and men. Gender-specific marketing covers the entire marketing-mix since it can be seen as an holistic concept. Advertising in the context of gender-specific marketing is typically based on stereotypical attitudes to gender.

However, adjusting gender-specific colours, language and packaging of a product to express femininity or masculinity seems to be out-dated (Johnson and Learned 2004). In particular the role of women seems to change due to increased salaries, for instance. Therefore, the authors recommend marketers to see their brands through the eyes of women for making suitable advertising for women. As a consequence, firms have to develop new strategies in regard to gender-specific target groups (Lamb et al. 2009). For instance, Unilever launched an initiative of gender equality in 2015. It is un-stereotyping people from a gender perspective. Similarly, a campaign started in 2014 to initiate a gender-neutral promotion of toys. Manufacturers have been called to stop the gender-specific segmentation of toys (Let Toys Be Toys 2014).

A typical purpose to hear music is the emotion regulation (Lowe 2015). A scientific research of Schäfer et al. (2013) revealed three factors why people listen to music. Those are achieving self-awareness, expressing identity and balancing the mood. Christenson and Peterson (1988) explored that there is a gender classification in the music preference even in a homogeneous group like college students. Women and men use and respond to music in various ways. Building on that, gender can be considered as a significant prognosticator of music preference. Christenson and Peterson (1988) found out, that males feel more associated with music while females use music as gratification to intensify or improve their mood. Furthermore, women are more likely to listen to pop-music whereas men tend to prefer rap and heavy metal music.

Generally, there are only few studies in regard to music preferences in a marketing context. This refers in particular to gender-specific preferences. Rentfrow et al. (2011) found out a model of musical preferences based on listeners' affective reactions to various music genres. Their model consists of five factors in regard to music preferences. These factors reflect mainly emotional and affective responses to music. As

a result, the authors found out that there are significant gender differences in regard to music preferences. Furthermore, Simon Firth (1981) explored gender-specific preferences in popular music. The author argues, that males are less integrated into social life than females. As a consequence, men seem to have higher enthusiasm for music. Similarly argue Christenson and Peterson (1988). However, Mizell et al. (2005) analysed musical preferences across the U.S. based on the Survey of Public Participation in the Arts (SPPA) from 1982 to 2002. The authors found out that the gender doesn't seem to play a relevant role in genre preferences. Only in four of twenty-one cases males tend to prefer different music genres compared to females. Those genres were bluegrass, R&B, jazz and rock respectively heavy metal music. Females are more likely to prefer hymns/gospel, dance/electronica, easy listening, and musicals/operetta according to these four cases. Vorderer and Schramm (2004) conducted an exploratory study to test differences in the music selection based on four different moods and activity states. The result provides insights into the relationship between situational music selection according to the compensation and iso principle. Furthermore, the results are differentiated by person-specific factors such as gender (Vorderer and Schramm 2004). For instance, in a melancholy mood women seem to prefer the iso principle. Consequently, they prefer mood congruent music in sad moments to keep the feeling constant. In contrary, men tend to compensate a melancholy mood by using the compensation principle. In other activity states respectively moods such as fun and joy, rage and anger or also calm and relaxation the authors couldn't detect gender-specific differences. A further gender-specific difference can be derived from personal preferences. Following Lamere (2014) women do not listen to the same artists as men do regardless of the popularity and chart placement of the music. Men don't like 30 per cent of the artists heard by women. The taste differs also in the selection of musical

instruments. As an example, the instruments clarinet and flute respectively piccolo favour 95.5 per cent of women. In contrary, only 4.5 per cent of men like these instruments. 90.3 per cent of men prefer wind and percussion instruments whereas the corresponding female rate amounts only 9.7 per cent (Lamere 2014). Additionally, genders can be differed from a frequency perspective. Men prefer rather bass whereas women favour treble frequencies (McCown et al 1997).

Methods

Following some of the existing studies there seems to be a gender-based difference in regard to the music preference. However, no study could be found that addresses music preferences at video ads on a music genre level. Consequently, the results of an empirical study in regard to music preferences at video ads will be tested according to gender-specific music differences. Students at the Stuttgart Media University performed an empirical study (n=362) related to the music selection for video ads in the timeframe May and June 2017. The participants of that study selected their preferred music genres in regard to various video ads on a four-point scale. The promoted products in the video ads were different products out of the food sector. They consist of premium and standard product examples. Overall, six products were presented. Those are champagne, coffee, functional food, hazelnut cream, smoothies and mineral water. The music genres were consolidated to the categories rock, pop, dance, rap, reggae and classic.

Based on the results of that study, gender-specific preferences will be evaluated by testing each product towards significant gender differences in the music selection. The corresponding model consists of the music genres as the dependent and the gender as the grouping variable. Consequently, genre-based differences will be evaluated by t-tests to compare the means between the gender groups. Furthermore, the means will be

tested in regard to statistically significant differences. Those combinations between product and genre that show gender-specific differences with a p-value below 0.05 will be discussed. Before applying these tests the dependent variables will be analysed for outliers. This will be done on a univariate level based on boxplots to detect extreme values. Extreme values will be tested for variance in the genre selection over all products. If the variance is equal to zero the corresponding extreme value can be seen as an outlier. Consequently, outliers will be excluded from the further research process. For a multivariate outlier test the mahalanobis distances will be calculated to detect abnormal data. Those distances show typically a kink if the distances are drawn in a decreasing order. Data above a kink at the upper end respectively below a kink at the lower end of the curve can be seen as extreme values. Those values will be additionally analysed. Finally, the composition respectively the arrangement of music for video ads will be discussed based on the gender-specific differences in the genre selection. The mean values of the gender groups will be used to interpret the significance on a gender-specific genre level. Furthermore, the descriptive results will be used to discuss a genre bending to adapt the music to the product and the gender of the target group.

Findings

The survey resulted in 362 participants. 66 per cent of those were female and 34 per cent male. In regard to the age 17 per cent of the participants are below twenty years, 63 per cent in between the age of 21 and 30 and 20 per cent above 30 years in age. The descriptive results of the gender-specific preferences per product are shown in table 1. There are three numbers for each genre. This corresponds to the values of female, male and all participants. From an overall perspective, classic music seems to be the most suited genre to promote champagne. This is followed by the genres pop and dance.

Therefore, a genre bending between those three genres corresponding to the share would cover the preferences by more than 80 per cent. From a gender-specific perspective, the genre bending could be realized with less classic and more pop elements for a male target group. This can be explained by the differences of the preferences in the second row of table 1.

Table 1. *Descriptive statistics of the gender-specific genre preferences*

Product	Rock [%]	Pop [%]	Dance [%]	Rap [%]	Reggea [%]	Classic [%]
Champagne	8.8 / 8.4 8.7	21.0 / 23.2 21.8	15.3 / 15.3 15,4	4.5 / 6.0 4.9	5.3 / 4.3 / 5.0	45.1 / 42.8 44,2
Nespresso Coffee	15.4 / 13.7 14.8	27.3 / 28.1 27.5	17.2 / 16.8 17.1	6.0 / 6.4 6,1	9.4 / 10.3 9.7	24.7 / 24.7 24.8
Pure Detox	10.9 / 13.5 11,7	30.1 / 28.5 29,5	21.4 / 18.9 20,6	6.6 / 7.2 6.8	15.7 / 15.6 15.7	15.3 / 16.3 15.7
Nutella	19.4 / 18.5 19.1	31.2 / 29.5 30.5	19.7 / 18.6 19.4	10.5 / 10.8 10.6	11.6 / 12.2 11.9	7.6 / 10.4 8.5
True Fruits Smoothie	15.2 / 16.1 15.5	28.1 / 27.1 27.7	21.0 / 19.9 20.7	10.1 / 11.0 10.4	16.8 / 16.5 16.7	8.8 / 9.4 9.0
Water Vio Bio	13.7 / 16.0 14.5	26.2 / 24.5 25.6	18.2 / 18.1 18.2	7.1 / 7.4 7.2	11.6 / 11.6 11.6	23.2 / 22.4 22.9

Legend: The number for each genre correspond to the female / male / total share

Source: Authors' own research.

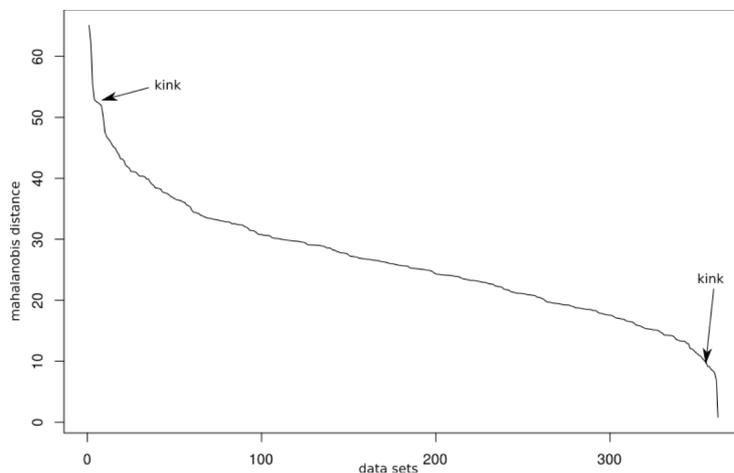
The genre preferences for coffee show a wider distribution. To cover 70% of the preferences three genres have to be bended. To meet gender-specific preferences there is only little data derived from the descriptive analysis in that case. However, more elements of the genre rock could adapt the music to a female target group. The remaining products Pure Detox, Nutella, True Fruits Smoothies and Water Vio Bio result in a dominating genre bending between pop and dance respectively classic music. What is particularly noticeable is the range of genre preferences. This could be explained by more general food attributes of those products. For instance, champagne and coffee consist of alcohol respectively caffeine whereas the other products can be seen as products without having an effect on the human body. As a result, the descriptive results show only little differences between the female and male preferences. Some of the preference levels are even equal. For instance, at the product Water Vio Bio the

participants chose gender-neutral the genre reggae with a share of 11.6 per cent.

However, the genre preferences for rock and pop music at the same product seem to differ on a gender-specific basis. Similarly, the product Pure Detox resulted in gender-specific differences particularly at rock and dance music.

The genre preferences were analysed in regard to extreme values via boxplots as described in the section methods. Building on this, the further analysis of the variance of those extreme values lead to one data set with a variance of zero in regard to the preference values. A closer look revealed that this data set consists of equal values for all preferences regarding the six products. Therefore, this data set can be seen as an outlier. Consequently, it won't be used for the further research process. The multivariate analysis was performed on base of the mahalanobis distances of the data set. The corresponding values can be seen in in figure 1 in a decreasing order.

Figure 1. Graphical analysis of the mahalanobis distances of the sample



Source: Authors' own research.

Two "kinks" could be identified. Data sets above the first "kink" and thus, above a value of fifty-five can be seen as extreme values. Similarly, all data sets below the second kink at the value seven correspond to extremes. At a closer look at the data sets above the distance of fifty-five no abnormalities could be identified. The analysis of the data sets below the second "kink" with a mahalanobis value below ten resulted in one further

extreme value. However, this data set corresponds with the outliers of the univariate analysis. As a summary, one data set will be excluded that was identified by the univariate as well as the multivariate test.

The results of the significance tests are shown in table 2. The corresponding products can be seen in the first column and corresponding significant genres in regard to gender differences are shown in the second column. The further columns describe the distribution as well as the result of the t-test. Those table cells with two values refer to the male and female values. Only those combinations between product and genre are listed that have a p-value below 0.05. As a result, five out of overall six tested products show at least one significant difference in regard to gender-specific genre preferences.

Table 2. *Significant genres in the context of gender-specific music preferences*

Product	Significant genre	Df	Group mean (m/f)	Standard deviation (m/f)	Standard error (m/f)	t-value	p-value
Champagne	Pop	250	1.4836/ 1.2761	0.9112/ 0.9388	0.0825/ 0.0607	2.0252	0.0439
Pure detox	Pop	208	1.8689/ 2.1255	1.0119/ 0.8408	0.0916/ 0.0544	-2.4091	0.0169
Pure detox	Dance	246	1.2377/ 1.5105	1.0528/ 1.0646	0.0953/ 0.0689	-2.3196	0.0212
Nutella	Pop	223	2.2951/ 2.4769	0.8301/ 0.7493	0.0751/ 0.0485	-2.0341	0.0431
Nutella	Classic	240	0.8115/ 0.6025	0.8845/ 0.8678	0.0801/ 0.0561	2.1368	0.0336
True fruits Smoothie	Pop	228	2.3197/ 2.4937	0.7526/ 0.6974	0.0681/ 0.0451	-2.13	0.0342

Source: Authors' own research.

Generally remarkable is the result in regard to the genre pop. It contributes to four of six products to significantly differ between woman and men. However, this doesn't lead to a standardised separation of the two gender groups since the group means vary. For instance, the male participants prefer more pop music at champagne ads than female participants due to a higher group mean. Vice versa, women prefer more pop music at the functional food Pure detox. Therefore, no universal recommendation can be derived

from that fact. As a consequence, a more precise look at each of the products seems to be necessary.

Following the results in table 2, the product champagne results in a significant genre-specific difference in regard to pop music. Corresponding to the group means male participants prefer pop by 23.2 per cent whereas female participants chose pop in 21 per cent of the cases. As a consequence, integrating elements from the pop genre into video ads for champagne seems to be an important factor in particular if the target group is male. All other genre preferences for this product don't show significant differences between male and female participants. Therefore they could be integrated into the music independently from the gender of the target group. However, the descriptive analysis results also in differences at classic, for instance. As a consequence, the genre pop can be seen as the key difference between male and female preferences. For a target group specific music composition also the integration of the descriptive results seems to be reasonable. Furthermore, the share of pop music is only 21 per cent compared to the genre classic with 44.2 per cent. As a result, the music can be adapted via the descriptive results. A further gender-specific adaptation seems to be possible by adapting the amount of pop elements of the music.

In regard to the functional food Pure detox two significant gender-specific differences could be found. The genre pop as well as the genre dance show a significant difference between man and woman. The group means result in higher value at female participants, as shown in table 2. As a consequence, it seems to be recommendable to integrate rather pop and dance genre elements into video ads for Pure detox in case the target group is female. Furthermore, rather Rock elements can be seen as important to address a male target-group. Since the genres pop and dance cover the overall preferences for this kind of product by 51 per cent these genres seem to be

recommendable for each gender. However, a further adaptation of the music to a gender-specific target group orientation seems to be possible. Similarly, the genres pop and classic resulted in a significant gender-specific difference for the product Nutella. In this respect, female participants prefer rather pop whereas male participants prefer classic music for the product Nutella. Since pop music is the dominating genre with an average preference of 30.5 per cent it seems to be reasonable to integrate pop elements gender-independent into the music. However, a further gender-specific adaptation can be reached by integrating classical elements for a male target group, for instance.

Finally, the product true fruit smoothie results in a significant gender-specific difference in regard to the genre pop. Consequently, it seems to be recommendable to integrate pop elements into the music for video ad for functional food particularly for a female target group. This can be explained with the group mean of female participants since it is higher in value as the male one. However, the pop preference in that case amounts generally only 27.7 per cent according to the descriptive results. Therefore, it seems to be recommendable in a first step to integrate the genres as shown in table 1. Since pop music showed significance in regard to gender-specific differences a gender-specific adaptation could be reached in a second step.

As a summary, not only one genre seems to be suitable to meet the preference of consumers. Rather a combination of several genres can be seen as recommendable to address a specific target group. Thus, a gender-specific focus can be set by combining genres and integrate more of those genre elements that show significant differences as shown in table 2. In addition, the shares of the remaining genres from the descriptive analysis could be used for both genders. For instance, a music arrangement for a Nutella video ad could be started with elements from the genre pop since these genres covers the highest preference share for each gender. A gender-specific adaptation of the

composition respectively the arrangement could be reached by integrating more classic elements for a male target group and additional pop elements for a female target group, for instance.

Discussion

The current article can be seen as a first step to adapt the music selection for video ads in regard to gender-specific preferences. Significant differences could be identified at five of six different products based on the product group food. Since those differences are not valid for all genres it seems to be recommendable to combine the significant genres with the genre distribution from the descriptive analysis. Based on that, those genres that showed no significance can be used gender-independent. From a practical perspective, the results can be seen as an indication for marketers that design the music of video ads. To compose respectively arrange music for a video ad the highest rated genre seems to be a good starting point. Building on that, the music can be gender-specifically adapted by the significant genres.

However, the survey cannot be seen as representative due to the limited number of participants as well as the limited number of tested products. The sample used in the current article consists of 62 per cent of female participants. As a consequence, the results may tend to be rather a female analysis. This can lead to distortions in regard to the results of the significant genres. Furthermore, gender differences are only one aspect of a target group adaptation. Therefore, further research appears to be necessary to precise the results of this work in regard to target-group specific music preferences. For instance, the age or cultural aspects could additionally influence the music preference. To increase the reliability of the results further quantitative surveys seem to be reasonable. In particular an increase of the number of participants would strengthen

the validity of the recommendations for the genre selection respectively the genre bending. Since the focus of the current article is based on food products, further research regarding other product groups such as cars or cosmetics would lead to a more holistic approach.

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