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SHALL WE DANCE? PROLOGUE TO THE INVESTIGATION OF THE PERCEPTION OF AUDIO ELEMENTS BY DANCERS IN STRATEGIC MARKETING MANAGEMENT

Marián Čvirik ¹, Ema Ruppertová ²

Abstract: *The aim of the article is to investigate the perception of music as an element of audio marketing and possible differences in perception within the segment of dancers and "non-dancers". In the paper, we present the results of a primary survey, the basis of which was 226 Gen Z respondents. In the context of the methodology, we use a number of research and statistical methods with an emphasis on frequency analysis, contingency analysis, and investigation of connections based on the chi-square test supplemented with Cramer's V. The results indicate that certain elements of audio marketing in the context of strategic marketing management are identical and others are not within the dancer and non-dancer segments. The results provide a basis for further research in the context of sensory marketing as well as emotional marketing.*

Keywords: Strategy marketing, marketing management, music, audio marketing, dance, neuroscience.

1 INTRODUCTION

Using sounds to promote your business, such as music, jingles, podcasts, and other noises, is known as audio marketing. Different from other kinds of marketing is audio propagation. Through auditory encounters, companies may use audio marketing to spread their campaign messaging beyond screens. Thus, it makes sense to consider effective advertising to be a crucial component of sensory, affective, and emotional marketing.

Čvirik (2022) characterise audio marketing as "marketing acting on customers using auditory stimuli. Auditory stimuli represent sounds of any volume and pitch that the human ear can perceive." The author (Čvirik, 2022) emphasise that not only the style of music is important when choosing. From the point of view of the properties of music, we can talk about genre, structure of music, tempo, rhythm, dynamics, sound colours, tonality, and the like.

Audio marketing is one of the best ways to make a strong connection with your target audience. With the use of jingles, brands can more easily reach their audience when a targeted sound campaign is played directly in the ears of the customer. Thanks to the wide availability of various forms of audio marketing, we can reach almost anyone we want. This ubiquity makes it easier for your marketer to strategize how to reach your target audience. The different types of audio marketing, along with the wide availability of audio worldwide, make it the perfect medium for advertising and presenting your brand identity. Audio marketing is more cost-effective than visual marketing for most companies.

The music user (listener) is also important in this context. Many studies indicate (but do not empirically investigate) the influence of the relationship to music, which creates considerable space for closer scientific research (Čvirik, 2023a). Music and dance are inextricably linked. Many studies indicate that dancers show different cognitive behaviours, a different level of physical fitness, a difference in affective and emotional behaviour, and, in general, social functioning in society (Lakes et al., 2016). From a neuropsychological perspective, dancers show different perceptions and performances (Bläsing et al., 2012). However, some studies indicate that the perceptual performance of dancers does not differ from that of non-dancers (the control group). In terms of music perception, in the case of dancers, it is a transformation of perception into movement activity, which can be expected to be shown on the basis of patterns, choreography, colour changes, sequences, and other parameters that they perceive in a different way (Lee et al., 2015). It can also be stated that the ability to perceive music in the sense of its rhythm is quite universal, but its degree can be affected by training, skills, and other expansion, whereby individuals are able to perceive rhythm and therefore also music differently than non-musicians and non-dancers. The emotional base that music can create is also related to the concept of music perception, and even in this case, potential differences between dancers and non-dancers can be expected (Susino, 2023).

The aim of the article is to investigate the perception of music as an element of audio marketing

and possible differences in perception within the segment of dancers and "non-dancers". ICT.

2 METHODS AND METHODOLOGY

The presented article is based on a primary survey, the basis of which is 226 respondents from generation Z. Generation Z is showing a change in music consumption (Kaplan, 2020; Čvirik, 2023b). The primary survey was conducted in the form of inquiries, while the generation group was mainly addressed. When collecting data, we used the snowball sample method, focusing on a specific group of dancers. The questionnaire was created in print form as well as in online form in the Google Forms environment.

The segmentation of respondents is based on their active dance activity or inactivity. On the basis of the above, it was possible to create two segments, namely a group of dancers and non-dancers, i.e., respondents who actively engage in dancing and dance activities and respondents who do not engage in the given activity. In this context, it can be stated that the sample consisted of 72 dancers and 154 non-dancers.

In our work, we use a number of mathematical and statistical methods, with an emphasis on data visualization. It is mainly a frequency analysis that is performed for two variables, which are clearly displayed in the crosstable. To investigate the relationship, we use chi-squared tests (χ^2), which we perform at a confidence level of 95% ($\alpha = 0.05$). The use of scientific and philosophical methods at all levels of solving the research goal is a matter of course.

3 RESULTS AND DISCUSSION

The presented study focuses primarily on the pilot study of differences in movement (dance) activity in the context of elements of audio marketing. The study basically focuses on two areas. The first area can be described as generic, the aim of which is to investigate general differences in the perception of audio by dancers and non-dancers. The second part focuses on the fundamental elements of audio marketing and their possible consequences for the studied segments.

First of all, we investigated the frequency of listening to music. In the context of strategic marketing, this is the initial moment when it is important to know the application possibilities of this element. We recorded the results of the frequency analysis in the context of dancers and non-dancers in a crosstable (Table 1).

Table 1 shows the frequency of responses obtained on the basis of the primary survey, using percentage conversions for the columns. Table 1 indicates that most of the respondents in generation Z listen to music on a daily basis. Music is widely available in the digital era with an emphasis on technological progress (Supiarza and Sarbeni, 2021), which is also reflected in the mentioned frequency. This shows some potential for audio marketing. As we

can see, the results indicate a slightly higher frequency of listening to music among dancers.

Table 1 Frequency of listening to music in the studied segments. Source: Own processing in R

Freq.	Variable	Dancer		
	Value	No	Yes	Total
1 time	Count	1	0	1
	% column	0.649 %	0.000 %	0.442 %
2 times	Count	2	0	2
	% column	1.299 %	0.000 %	0.885 %
3 times	Count	6	3	9
	% column	3.896 %	4.167 %	3.982 %
4 times	Count	5	6	11
	% column	3.247 %	8.333 %	4.867 %
5 times	Count	12	5	17
	% column	7.792 %	6.944 %	7.522 %
6 times	Count	16	3	19
	% column	10.390 %	4.167 %	8.407 %
7 times	Count	112	55	167
	% column	72.727 %	76.389 %	73.894 %
Total	Count	154	72	226
	% column	100.000 %	100.000 %	100.000 %

However, this may also be due to a random component or sample error. It is therefore appropriate to examine the connections between the weekly frequency of listening to music and the realisation of a dance activity with the help of higher statistical tools, specifically the chi-square test. We recorded the results in Table 2.

The results (Table 2) show the absence of connections. Objectively, the given fact can be interpreted in the context of objective significance as follows: the weekly frequency of listening to music is not related to dance activity, and thus there are no expected differences between the above. The two investigated segments basically behave similarly; respectively, they do not behave significantly differently.

Table 2. Chi-Squared Tests I

Chi-Squared Tests	Value	df	p-value
χ^2	6.415	6	0.378
N	226		

Source: Own processing in R.

The results (Table 2) show the absence of connections. Objectively, the given fact can be interpreted in the context of objective significance as follows: the weekly frequency of listening to music is not related to dance activity, and thus there are no expected differences between the above. The two investigated segments basically behave similarly; respectively, they do not behave significantly differently.

The second question was oriented towards the investigation of the affective-conative attitude towards the dance activity. We recorded the results based on the cross-table in Table 3.

Table 3. Affective-conative attitude towards dance activity

Do you like to dance?	Variable	Dancer		Total
	Value	No	Yes	
No	Count	44	0	44
	% column	28.571 %	0.000 %	19.469 %
Yes	Count	110	72	182
	% column	71.429 %	100.000 %	80.531 %
Total	Count	154	72	226
	% column	100.000 %	100.000 %	100.000 %

Source: Own processing in R.

The results from Table 3 clearly show that within the segment of dancers, everyone likes to dance. This is a logical indication of belonging to a segment. On the other hand, 28.57% of non-dancers do not like to tango and 71.43% like to dance, which indicates that dancing is a relatively general activity, which from the point of view of the affective component of the attitude represents a predominantly positive activity, and from the point of view of the conative component, it is a relatively performed activity. Again, we verified the relationship using the Chi-Squared Test (Table 4).

Table 4. Chi-Squared Test II

Chi-Squared Tests	Value	df	p- value	Cramer V
X ²	25.545	1	4.322×10 ⁻⁷	0.336
N	226			

Source: Own processing in R.

The results of the Chi-Squared Test (Table 4) indicate the existence of a relationship between the investigated variables. It is also necessary to consider the intensity of this relationship, which can be interpreted as moderately strong on the basis of Cramer V. So, we expect that dancing is preferred by dancers, but it is not rejected even in the non-dancer segment. Dance seems to be a relatively universal means of possible communication, as it creates a positive effect.

In the next part, we focused on the possible elements of audio marketing. First of all, it is about musicality. Musicality represents musical feeling, i.e. the ability to perceive music and to be able to express movement activity rhythmically. Of course, it should be noted that the musicality was investigated on the basis of subjective evaluation, which ultimately represents a certain limit that must be considered. So, we focused on the subjective perception of musicality in the context of the investigated segments. We recorded the result in the form of a crosstable in Table 5.

Table 5. Musicality in the context of the investigated segments

Do you notice different musicality in the music?	Variable	Dancer		Total
	Value	No	Yes	
No	Count	46	0	46
	% column	29.870 %	0.000 %	20.354 %
Yes	Count	108	72	180
	% column	70.130 %	100.000 %	79.646 %
Total	Count	154	72	226
	% column	100.000 %	100.000 %	100.000 %

Source: Own processing in R.

The results (Table 5) indicate that all respondents from the segment of dancers perceive musicality, while for non-dancers, it is only about 70%. This is an indication that musicality is dominant in the segment of dancers, which must be considered when creating marketing management strategies with an emphasis on the area of using audio marketing elements. It is logical since the basis for dancers is the feeling of music and the coordination of movements; therefore, the concept of musicality needs to be smoothed out. Of course, we also solved the relationship between the perception of musicality and the investigated segments based on the element of inductive statistics (Table 6).

Table 6. Chi-Squared Test III

Chi-Squared Tests	Value	df	p-value	Cramer V
X ²	27.003	1	2.032×10 ⁻⁷	0.346
N	226			

Source: Own processing in R.

Results from Tab. 6 show that there is a connection between musicality and segments, while it is evident that it represents a key element of the segment of dancers, and therefore it is necessary to implement it in the context of marketing management. As an example of such an implementation, the incorporation of an element of musicality into advertising spots, during the creation of a communication campaign, but also during the creation of a product can be mentioned.

In the following question, we investigated the subjective conscious perception of music during shopping. We recorded the results again in the contingency table (Table 7).

Table 7. Perception of music when shopping in the context of the investigated segments

Do you notice music while shopping?	Variable	Dancer		Total
	Value	No	Yes	
No	Count	36	8	44
	% column	23.377 %	11.111 %	19.469 %
Yes	Count	118	64	182
	% column	76.623 %	88.889 %	80.531 %
Total	Count	154	72	226
	% column	100.000 %	100.000 %	100.000 %

Source: Own processing in R.

The results (Table 7) are quite surprising, when we can observe that roughly 77% of non-dancers and up to 89% of dancers are consciously aware of the music when shopping. It is a certain signal that needs to be better understood and implemented in the context of marketing management. Within marketing management, music is an element that intertwines across both the process base and the tools of marketing, with an emphasis on mental and emotional marketing. Therefore, it is appropriate to examine this relationship. In the context of variables, it is appropriate to use the chi-squared test (Table 8).

Table 8. Chi-Squared Test III

Chi-Squared Tests	Value	df	p-value	Cramer V
X ²	4.708	1	0.03	0.144
N	226			

Source: Own processing in R.

The results of the test point to the existence of a relationship, but it can be characterised as weak. However, this is an indication that marketers should be aware of and consider in marketing campaigns at all levels.

4 CONCLUSION

The aim of the article was to investigate the perception of music as an element of audio marketing and possible differences in perception within the segment of dancers and "non-dancers.". First of all, we offer a literature review focused on demonstrating behavioural differences between dancers and non-dancers based on neuroscience. The article is supported by a primary survey, the basis of which was 226 respondents from generation Z. Specification by generation will help to better specify specific groups of consumers.

The results point to differences in behaviour in certain areas of audio marketing elements, which must be taken into consideration when creating and implementing the process of strategic marketing management. It can be concluded that we did not identify differences between dancers and non-dancers

in terms of weekly frequency. At the same time, it can be stated that the frequency of listening to music in the studied cohort is high, which indicates the importance of music in their lives. In this context, there is an opportunity for strategic marketing management to create strategies oriented towards audio elements as a means of informing, reminding, and persuading. Within the affective-conative attitude towards dance activity, it is obvious that this segment of dancers likes dancing. It is logical, but it is therefore appropriate, for example, to use this kind of culturally emotional experience in marketing campaigns. Musicality represents an equally important element within the segment of dancers, which again indicates what kind of music needs to be used. In many foreign studies, the element of "danceability" is used (Howlin and Rooney, 2021), which can also be used when choosing music. It is obvious that music is perceived by both segments (dancers and non-dancers) consciously.

The article presents an introduction to the study of the effects of audio marketing. It should be noted that this is a demanding field that includes marketing as well as musicology, psychology, sociology, cultural studies, and other humanitarian scientific disciplines. In the future, a deeper investigation of the conscious and subconscious effects of music would be appropriate. Research on other generations and their subsequent comparisons would also be appropriate. The presented article represents a basis for further investigation.

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AUTHORS ADDRESSES

¹ Ing. Marián Čvirik, PhD.

University of Economics in Bratislava,
Faculty of Commerce,
Department of Marketing,
Dolnozemska cesta 1, 852 35 Bratislava, Slovakia
E-mail: marian.cvirik@euba.sk.

² Ema Ruppertová

University of Economics in Bratislava,
Faculty of Commerce,
Department of Marketing,
Dolnozemska cesta 1, 852 35 Bratislava, Slovakia