

Sounds Like Chicken : Sensory Marketing and Sound Effects

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Abstract

Sensory marketing appeals to our senses (sight, hearing, smell, touch, and taste). What if you could combine sight, sound (effects), and taste all in one advertisement ? Would it be more effective at influencing consumer behavior than music ? This study was conducted in Malaysia and looked at the integration of sound effects into advertising to bridge the gap between the senses of sight, sound, and taste (Fried Chicken). The results demonstrated that sound effects influenced consumers' beliefs and purchase intentions more than music or silence. This research closes the gap on whether advertisers should use sound effects, music, or silence. It is the next step in sensory marketing and invites new attention to the combination of senses in advertising strategy.

Keywords : advertising, music, sensory marketing, silence, sound effects

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Marketing began with the sense of sight in advertisements. Various colours and fonts were used in posters and billboards as early as the 1850s. Next came sound with the advent of commercial radio and advertisements in the 1920s. Over the years, music used in advertisements were usually crafted to enhance product image and/or to solicit a favourable response from consumers. Many advertisements relied on music rather than words (Dunbar, 1990 ; McEwen & Leavitt, 1976), and as such, advertisers invested a lot of money in hope that music complemented certain attributes of the product, which would consequently lead to an increase in sales.

Much of the consumer behaviour literature today has included studies concerning the effects of the musical genre, tempo, and modality, and most discussions on music and advertisements have assumed positive correlations (Allan, In Press ; Galizio & Hendrick, 1972 ; North & Hargreaves, 2008 ; Yeoh & North, 2010a). In the 1940s, sight was combined with sound as almost every home had a television, and marketers were keen on exploring the effects of sound in advertisements. Today, with the addition of music streaming, nearly all brand information can be made available through sound (Longley, 2019). Choice music, jingles, and spoken words help associate brands with products, and hence, marketers would spend huge amounts of money and time investing in sound (Longley, 2019).

Audio branding has been growing especially in traditional advertising. Brands like Apple, Coca-Cola, and Intel continue to lead the way (Arnese & Reese, 2019). For the first time, marketers will have no choice but to consider the audio characteristics of their brands (Ogilvy Consulting, 2019). It has been suggested that it

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is time for brands to really focus on audio branding because brands without an audio presence will have no presence (Ciccarelli, 2019). Music including popular vocals, instrumentals, and jingles (Allan, In Press ; Roehm, 2001 ; Wallace, 1991, 1994 ; Yalch, 1991) and silence (Olsen, 1995) have been shown to affect recall under varied conditions. The presence of music has also been shown to be both attention-getting (Park & Young, 1986) and distracting (Wheatley & Brooker, 1994). The placement (Brooker & Wheatley, 1994) or the presence (Macklin, 1988) of music also has not been observed to affect recall. Sharma (2011) found ad recall better without background music in a talk program. Musical fit has been shown to stimulate better recall and memory of brands (e.g. North, MacKenzie, Law, & Hargreaves, 2004 ; Shen & Chen, 2006 ; Yeoh & North, 2010a) and product choice (Yeoh & North, 2010b).

Sensory Marketing

Sensory marketing and its role in brand experience is getting considerable attention (Jain & Pasricha, 2017 ; Rathee & Rajain, 2018 ; Sumbly & Siraj, 2019). Sensory marketing represents a paradigm shift in how marketers seek to engineer sensory experiences for consumers based on various strategies (Table 1). Practically, there have been some great examples of how sensory marketing is being used by advertisers who have capitalized on distinctive sensory experiences of their products. One such example is the Apple brand : which offers consumers an interactive and immersive in - store experience. The outlets are adorned with Apple trademark symbols and colour (sight), and packed with gadgets that can be experienced and touched. Another pioneer in multi-sensory marketing, the Starbucks brand, provides a complete package with coffee aroma (smell), music (hearing), the trademark logo (sight), the Starbucks coffee mug (touch), and finally sipping coffee (taste), culminating in the 'Starbucks experience.' Consider also the pleasure of smell in a campaign by Dunkin' Donuts in South Korea. Every time a company jingle was heard on the city buses, an atomizer discharging aromatic smells of coffee was released. This led to an increase in visits to Dunkin' Donuts outlets situated near bus stops (16%) and sales (29%) at these locations (see *Harvard Business Review*, 2015). In 2016, Coca-Cola adopted the tagline 'Taste the Feeling'

Table 1. Most Relevant Sensory Marketing Definitions and Observations

Citation	Definition
Gobé (2001) ; Hultén (2015)	Necessary to appeal on both the emotional/rational level and to as many senses as possible.
Ramos, Delgado, & Jiménez-Marín (2007)	Emotional issues significantly affect consumers' purchase decisions.
Krishna (2012)	Marketing that engages the consumers' senses and affects their perception, judgement, and behavior.
Erenkol & Merve (2015)	Advertising strategy intended to appeal to our five senses (sight, hearing, smell, touch, and taste) can determine decisions we make, offering a satisfying or dissatisfying experience.
Hultén (2015)	A paradigm shift in sensory experiences, strategies, and stimuli.
De Almeida (2018)	Decisions are made through an emotional mechanism without rational thinking.
Jiménez-Marín, Bellido-Pérez, & López-Cortés (2019)	Emotional issues affect consumers' decisions more than rational ones.
Longley (2019)	Sensory branding strategy can effect beliefs, feelings, thoughts, and memories.

which aptly encapsulated all sensory experiences. In most Coca-Cola advertisements, it is clear that customers' senses are being feted – from the design of the distinctive contour shaped bottle (sight and touch), to the colour of the drink – red, triggering a sense of danger and excitement (sight), to the pop and fizz that comes with opening the bottle (hearing and smell), and finally to the gulping down of the drink (taste) (Hobbs, 2016). More recently, Coca-Cola has been asking consumers to hear sounds in print ads (Diaz, 2019). Successful sound marketing can also be seen in Magnum ice cream advertisements, whereby the cracking sounds made by the model biting into the chocolate coating of the ice cream are emphasized. Potato chip manufacturers were quick to adopt noisy packaging for their products so as to emphasize the crunchiness of the chips inside (Bryon, 2012 ; Spence, 2015 ; Stuckey, 2012 ; Vranica, 2010).

Academically, there has been a recent rush of interest and research (see Krishna, 2012 for integrative review) using consumers' sensory experiences to influence behavioural and emotional tendencies (Table 2). Sound (effects) and music (fit) has emerged as a potential leader in attention and results (Table 3). Sound effects in retail/restaurants have been used for years (Allan, 2007). There are many practical examples of sound effects in servicescapes (Bitner, 1992) that drive purchases like the sizzling of fajitas at Chili's (Beckerman, 2014). Sound effects in advertising have been observed to increase mental imagery attitude which can result in more favourable attitude toward the advertisement and improve recall and recognition (Miller & Marks, 1992).

Table 2. Most Relevant Sensory Marketing Literature

Citation	Contribution
Krishna, Lwin, & Morrin (2010)	Scent (tea tree oil) improved recall of brands of pencils.
Spence & Zampini (2007)	Sound (aerosol spray) when boosted, enhanced forcefulness and pleasantness.
Erenkol & Merve (2015)	Hearing (musical styles, volume, and pace of music) influenced consumers' feelings, moods, and purchasing decisions in a restaurant.
Govind & Narayan (2019)	Taste was found to be the most important sensory marketing element when dining in a restaurant.
Lageat, Czellar, & Laurent (2003) ; Spence & Wang (2015) ; Velasco, Jones, King, & Spence (2013)	Sound modifications have been widely researched to convey certain characteristics of a product.
Knöferle (2012)	Modified sounds from a coffee machine that would lead to an increased liking for the coffee. The author suggested that 'sizzling,' 'dripping,' 'crackling,' and 'even' are preferred machine sounds in contrast to 'rattling,' 'high frequency,' 'hard,' 'loud,' and 'powerful.'

Previous observations have demonstrated that the use of all sensory experiences to advertise can yield encouraging results. Numerous studies have also indicated positive results that when music 'fits' the advertised product, consumers would be better influenced to have an affirmative brand attitude. This study, in particular, examines the effects of one sensory element 'sound' and the use of musical fit on consumers' beliefs for the advertised product. With the current wave of sensory experiences, it remains to be studied if sound effects can make for a better marketing tool than musical fit after all and especially since sound effects are universal across culture, age, and gender. For example, the sound of chips being crunched or a car's engine being revved up carry the same message in every part of the world. Music, however, is culturally dependent, and as mentioned above, has limitations. Hence, this study, for the first time, compares the use of sound effects and music in advertising and its effects on purchase intention.

Table 3. Most Relevant Sound Effects, Music, and Fit Literature

Citation	Contribution
Areni & Kim (1993)	Music can act as a cue (low-involvement consumers).
MacInnis & Park (1991)	When music fits the advertised product, consumers are more likely to have positive beliefs of the product.
Grewal, Baker, Levy, & Voss (2003)	Classical music can enhance brand image (luxury) of jewelry.
Kassarjian (1971) ; Onkvisit & Shaw (1987) ; Sirgy (1982)	Musical elements that fit help craft a brand's image by way of association.
North, Hargreaves, & McKendrick (1999)	Supermarket customers purchased French wines when French music was played ; German wines when German music was being played.
Yeoh & North (2012)	Consumers demonstrated preference for the brand advertised with music that fit the brand attributes (even when not regular users of the brand).
Yeoh & North (2013)	Musical fit is able to influence preference.
Miller & Marks (1992)	Sound effects in advertising can increase mental imagery attitude, which can result in more favourable attitude toward the ad and improve recall and recognition.

Materials and Methods

The present study employs three video advertisements featuring fried chicken. Fried chicken was considered one of the most popular food items among participants in this age group. The first advertisement was fitted with sound effects of marinating, deep frying, and biting into the fried chicken. The second advertisement was fitted with pop music that carried lyrics which fitted the fried chicken, and the third advertisement had no music to accompany it. Participants were then asked to rate their beliefs for the advertised fried chicken.

Participants

One hundred and one participants took part in the study with 41 males and 60 females. They were divided into three groups. Thirty-four participants watched the advertisement matched with sound effects in the background (Group A), 31 participants watched the advertisement matched with pop music (Group B), and 36 participants watched the advertisement without any music (Group C). The mean age of the participants was 21.7 years ($SD = 2.38$). Participants were recruited by approaching students at the library of a local university in Malaysia. Participants were tested individually in a quiet room in the library two weeks after the pilot study. The participants were all fluent English speakers.

Pilot Study

The pilot study had 20 participants drawn from the same general population as the sample used in the main experiment. The music used was taken from 'Eat It' by Weird Al Yankovic (a parody of Michael Jackson's 'Beat It'). Participants were then asked to identify the verse and chorus which they felt were most relevant to the fried chicken, and the most frequently nominated verse and chorus were employed in the present research. Sound effects were also pretested to ensure it generated associations of 'crisp,' 'crunch,' and 'crusty'. It was determined that a 40 second exposure period was adequate for this advertisement.

Research Design

A between subjects design was used in which participants watched a 40 second advertisement featuring fried chicken. The participants were played either sound effects (Group A), pop music (Group B), or 'no music' (Group C). The first 18 seconds of the video demonstrated the preparations required ; from marinating the chicken to the frying of the chicken in a deep fryer. The next 22 seconds showed individuals savouring the fried chicken. In the first 18 seconds of the sound effects condition, ambient sounds of pieces of chicken being marinated were heard, followed by crackling of the oil as chicken pieces were fried; whilst in the next 22 seconds, the study employed sounds of individuals crunching into the fried chicken, with occasional 'mmmhhh...'s. The pop music condition employed lyrics which fitted the advertisement ; for example, in the first 18 seconds, the lyrics 'get yourself an egg and beat it...' accompanied the visual of a chicken being marinated in an egg bowl mixture ; and in the next 22 seconds, the chorus of the song 'just eat it, eat it, just eat it, eat it...' was used to accompany the visuals of individuals eating fried chicken. The sound effect/music was played comfortably at an appropriate level through a pair of headphones attached to the laptop that also presented the advertisements.

Procedure

The research was carried out between 12 pm – 2:00 pm over six weeks between April and May 2019. This time of the day was selected as it represented an opportune time to watch an advertisement on food as it was predicted that participants would naturally be ravenous towards lunch hour. Participants were provided free food in exchange for completing the questionnaire. Participants were asked to watch the advertisements and they were then given unlimited time to complete the six-item questionnaire. Question 1 required them to rate how often they ate fried chicken and to give a rating between 0–5, with 0 being “I rarely eat fried chicken” to 5 being “I eat fried chicken every day.” Question 2 asked participants to what extent did they feel the advertisement emphasized the crunchiness of the fried chicken and to give a rating between 0–5, with 0 being “not at all” to 5 being “very crunchy”. Question 3 asked participants to what extent did they feel that the advertisement emphasized the juiciness of the fried chicken and to give a rating between 0–5, with 0 being “not at all” to 5 being “very juicy.” Question 4 asked participants to what extent did they feel the advertisement emphasized freshness of the fried chicken and to give a rating between 0–5, with 0 being “not at all” to 5 being “very fresh.” Question 5 asked participants to rate the extent to which they were inspired by the advertisement to eat fried chicken more frequently and to give a rating between 0–5, with 0 being “not at all inspired” to 5 being “very inspired.”

Analysis and Results

A one-way ANOVA was conducted to ascertain whether the perceived characteristics of the fried chicken varied as a function of the type of sounds playing in the background (controlling for variations in the frequency with which participants ate fried chicken). The results indicate an interaction between all three groups and their perceived characteristics (crunchiness, juiciness, and freshness) for the fried chicken, $F(2, 98) = 15.07, p < .001$. Participants in Group A rated the fried chicken at a mean of 12.68 ($SD = 1.12$). Participants in Group B rated the fried chicken at a mean of 10.36 ($SD = 2.30$), and a mean of 11.83 ($SD = 1.6$) for Group C. Simply, the advertisement which had sound effects playing in the background led participants to believe that the fried chicken was crunchier, juicier, and fresher. Interestingly, participants in the 'no music' condition rated the fried chicken more positively than participants in the pop music condition (refer to Table 4).

A Tukey post - hoc test also reveals that the perceived characteristics of the fried chicken are statistically significant when sound effects are played ($M = 12.68, SD = 1.12, p = .000$), while no music leads to ($M = 11.83, SD = 1.60, p = .002$), and pop music ($M = 10.36, SD = 2.30$) (see Table 5).

Table 4. Mean Ratings and SD in Responses to the Questionnaire for All Groups

Groups	Background Sounds	N	Mean	SD
Group A	Sound effects	34	12.68	1.12
Group B	Pop music	31	10.36	2.30
Group C	No music	36	11.83	1.60

Table 5. Post Hoc Tukey HSD in Responses to Perceived Characteristics of Fried Chicken

	Music Group (I)	Music Group (J)	Mean Difference (I-J)	Std. Error	p
Perceived characteristics of fried chicken	Sound effects	Pop music	2.32*	.43	.000
		No music	.84	.41	.106
	Pop music	Sound effects	-2.32*	.43	.000
		No music	-1.48*	.42	.002
	No music	Sound effects	-.84	.41	.106
		Pop music	1.48*	.42	.002

Note. *The mean difference is significant at the 0.05 level.

To further support the above-mentioned results, a chi-square test was conducted to ascertain whether the individual characteristic (e.g. crunchiness, juiciness, and freshness) of the fried chicken were associated with the type of music (no music) played. The results for crunchiness of the fried chicken is significant at ($X^2 = 14.608$, $df = 4$, $p < .05$), with participants in Group A rating the fried chicken as very crunchy followed by participants in Group B and Group C, respectively. Similar trends are found in participants' perceived characteristics for juiciness and freshness of the fried chicken, with juiciness at ($X^2 = 20.409$, $df = 4$, $p < .05$) and freshness at ($X^2 = 10.378$, $df = 4$, $p < .05$). To put it simply, the fried chicken is crunchiest, juiciest, and freshest when sound effects are used in the advertisement.

Next, a one-way ANOVA was conducted to ascertain the extent by which participants were inspired to eat fried chicken more frequently (Q5), varied as a function of the type of sounds playing in the background (controlling for variations in the frequency with which participants ate fried chicken). The results indicate an interaction between the three groups and the extent by which they were inspired to eat fried chicken more frequently [$F(2, 98) = 4.58$, $p < .05$]. Participants in Group A rated their intentions to eat fried chicken more frequently at a mean of 3.94 ($SD = 0.98$), while Group B rated their intentions to eat fried chicken at a mean of 3.26 ($SD = 1.09$), and a mean of 3.83 ($SD = 0.85$) for participants in Group C (see Table 6).

A Tukey post - hoc test reveals that participants in Group A were significantly inspired to eat more fried chicken after watching the advertisement with sound effects ($M = 3.94$, $SD = 0.98$, $p = .016$), while no music led to ($M = 3.83$, $SD = 0.85$, $p = .046$) and pop music ($M = 3.26$, $SD = 1.09$) (see Table 7).

The results demonstrate that participants were most likely to purchase fried chicken after watching the advertisement with sound effects playing in the background. It is also interesting to note here that participants in

Table 6. Mean Ratings and SD in Responses to the Questionnaire for All Groups

Groups	Background Sounds	N	Mean	SD
Group A	Sound effects	34	3.94	0.98
Group B	Pop music	31	3.26	1.09
Group C	No music	36	3.83	0.85

Table 7. Post Hoc Tukey HSD in Responses to Purchase Intentions for Fried Chicken for All Groups

	Music Group (I)	Music Group (J)	Mean Difference (I-J)	Std. Error	p
Purchase Intentions	Sound effects	Pop music	.68*	.24	.016
		No music	.11	.23	.889
	Pop music	Sound effects	-.68*	.24	.016
		No music	-.58*	.24	.046
	No music	Sound effects	-.11	.23	.889
		Pop music	.58*	.24	.046

Note. *The mean difference is significant at the 0.05 level.

the 'no music' condition were more likely to purchase fried chicken after watching the advertisement compared to participants who were exposed to pop music. The results of this study suggest that sound effects are likely to influence consumers' perception, purchasing, and eating intentions, and do so more effectively than music. The experiment also shows that participants in the 'no music' condition rated more highly the characteristics of the fried chicken, and were more keen to purchase fried chicken after watching the advertisement compared to those in the pop music condition. One possible reason could be that the lyrics that accompanied the pop music condition had too great a degree of musical fit, so much so that it may have appeared too crass. For instance, the lyrics 'just eat it, eat it, just eat it, eat it' was very literal and might not have appealed to the participants who were mostly college students who may have perceived themselves as 'anti-establishment.' Along similar lines, the use of Aretha Franklin's 'You make me feel like a natural woman' in a shampoo advertisement may not interest a certain segment of the market that perceives itself as refined and urbane (North et al., 2004 ; see also Yeoh & North, 2010b).

Another possible explanation can be seen in Heckler and Childers (1992) (see also Houston, Childers, & Heckler, 1987), whereby the authors argued that deeper processing is required when there is incongruity between elements in an advertisement, resulting in improved recall of the advertisements. The diverse examples of studies yielding inconsistent predictions of musical fit can be problematic. An example of this is Morris and Boone's (1998) study, which claimed that there were limited differences in participants' brand attitudes and purchase intentions whether music was fitted with the product or no music was used. Similarly, Kellaris, Cox, and Cox (1993) found that 'no music' advertisements performed about as well as (and in some cases better than) musical advertisements in terms of recall and recognition (see also Haley, Richardson, & Baldwin 1984 ; Macklin, 1988 ; Sewall & Sarel, 1986). Alpert and Alpert (1991) noted that in some studies, music would appear to enhance communicative aspects of the advertisements, and yet in other studies, the opposite may be true for reasons that are yet to be understood. The diverse findings in research are possibly due to the very abstract stimuli and cognitive mechanisms that are involved in advertising research.

Managerial and Theoretical Implications

The use of audio branding is on the rise. The need to support it with academic research is imperative. Past research has shown the effectiveness of 'fit' music, sound effects, and no music plus a comparison of musical fit and no music. The sensory marketing literature is now furthered by the observation of higher effectiveness of advertising when the senses of sight, sound (effects), and taste (imagined) are combined. Although this study investigates only one product (fried chicken), there is clear evidence that the combination of senses is able to influence consumers' beliefs and their intentions to purchase the advertised product. The results suggest that advertising executives should favor the use of sound effects over either music or silence. This will maximize consumer senses and will have a greater influence on consumer behavior.

Scope for Further Research

Future research could investigate the potentiality and limitations of engineering sound effects in advertisements. For example, would an advertisement for a luxury car (e.g. Rolls Royce) be more effective with music that fitted (classical music), or the sounds of a car engine starting ? The product used in the current study is of mainstream value. It remains to be investigated if products that project a certain 'class' would benefit from the effects of sound engineering. The sample used in this study was from the same cohort and future research could adopt a broader age group of participants. More product types and genres could also be observed. Non-linear relationships between variables should also be investigated, and for the moment at least, adopt trimmed-down experimental methods that would be able to provide deeper insights into the requirements by which certain theories do and do not operate. There are clear gaps in the literature on audio branding and the effects of sound are endless.

Authors' Contribution

Dr. Joanne P. S. Yeoh conceived the idea and developed a quantitative design to undertake the empirical study. All interviews, analysis, and computations using SPSS were conducted by Dr. Yeoh. Both Dr. Yeoh and Dr. Allan wrote the manuscript.

Conflict of Interest

The authors certify that they have no affiliations with or involvement in any organization or entity with any financial interest, or non-financial interest in the subject matter, or materials discussed in this manuscript.

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