

Food Marketing and Its Influence on Peoples' Perception of Health

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How to cite this paper: Willis, S. (2022). Food Marketing and Its Influence on Peoples' Perception of Health. *Open Journal of Social Sciences*, 10, 537-549. <https://doi.org/10.4236/jss.2022.1011034>

Received: September 12, 2022

Accepted: October 25, 2022

Published: October 28, 2022

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Abstract

Assessing the extent to which marketing strategies and product packaging influences peoples' perceptions of a food product in terms of healthiness was the primary aim of this study. To draw conclusions, casual comparative research, which is used to identify a causative relationship between an independent and a dependent variable was implemented. Each of the study's 140 participants was first asked to compare the nutrition labels of two products and select the one that they believed was a healthier choice. The results for the nutritional comparisons were considered to be representative of participants true perceptions of health. Later, the independent variable, product packaging was introduced, and participants were again asked to select which of the two goods they believed to be healthier. After viewing the product packaging and therefore marketing strategies, the majority of participants indicated that the food product which contained more elements of strategic marketing was the healthier choice. Since such selections were often inconsistent with their nutritional sections, it was uncovered that exposure to product packaging and marketing strategies does have a significant impact on how people perceive food products in terms of healthiness.

Keywords

Marketing, Product Packaging, Health, Perceptions

1. Introduction

1.1. Background

Each day, the average person is exposed to hundreds of marketing-based stimuli, all of which contain underlying messages designed with the goal of encouraging consumers to make a purchase, support an ideology or take action in some way. In general, marketing is the process by which organizations "determine the needs,

wants and interests of target markets and deliver the desired satisfactions more effectively and efficiently than [their] competitors in a way that maintains or improves the consumer's and society's well-being" (Mohamed, 2013: p. 3704). Throughout the 20th and 21st centuries, this business practice has become commonplace in companies belonging to all industries, largely because without the ability to reach and appeal to an audience, making profit is virtually impossible.

The rise of competition within the free market has coincided with an increase in both the importance and prevalence of effective marketing strategies as well. In turn, this phenomenon alone has vastly altered the way consumers consider their purchasing decisions. Almost immediately, exposure to either physical or digital stimuli has an effect on the way people perceive the quality of a given product. In fact, "more than 70 per cent of customer decisions to purchase a product are made at the point of sale" (POPAI qtd. Rundh, 2013: p. 1557). It is for this reason that companies allocate significant funds and resources towards creating elaborate marketing campaigns which allow them to not only exaggerate the alleged benefits of their products, but to make the product conspicuous among its competitors.

This approach is especially pervasive within the food industry, where consumers often fall victim to the elaborate and sometimes fraudulent marketing schemes that companies implement to yield greater profit. Although "the basic purpose of health claims is consumers' benefit by providing information about healthy eating habits... [the] food industry often uses health claims for advertising purposes" (Žeželj et al., 2012: p. 268). Since people are generally attracted to products alleged to improve health and well-being, companies seeking to gain profit often include inflated and even false claims to health as a method of advertisement. This has potential to be not only misleading, but harmful to consumers.

1.2. Formulation of Question

While there is existing literature relating to how marketing strategies are used within the food industry, little research has been conducted to unveil how such strategies influence peoples' buying decisions and their overall perception of health. Product packaging is the most popular approach to marketing food products as its primary purpose is "communicating information to the consumer at [the] point of sale about product attributes" (Mehta et al., 2012: p. 1763). More importantly, however is the fact that many companies use this method to target specific groups. For example, among children "product packaging is particularly salient [because] children are the population group most vulnerable to such food marketing" (Signal et al., 2017: p. 7). Since children are highly impressionable, this makes them easily influenced and especially vulnerable as consumers. Already, it has been proven that constant exposure to marketing tactics is effective in impacting children. However, the specific effects have yet to be studied, raising the question: To what extent does marketing influence peoples' perception in

relation to which foods are healthy to consume?

2. Literature Review

2.1. Marketing and Advertising Strategies

Effectively marketing and advertising goods has become increasingly important over time; therefore prompting companies to allocate substantial funds and resources towards not only reaching their target audiences but encouraging this audience to purchase a given good. While nearly all companies use this approach to some capacity, there are various slightly nuanced methods for doing so.

In relation to food and other health products, companies focus specifically on cultivating visually appealing and differentiated products. This is largely because the role of packaging is to “attract consumer’s attention and transmit adequate value of product to a consumer in the short period right in the place of sale” (Quazi qtd. [Ahmad et al., 2012: p. 4](#)). When consumers perceive a good to be valuable, they are more likely to make decisions based upon impulse, consequentially yielding greater profits for the given company.

When considering how companies promote “healthy” eating, it is important to acknowledge that although products may be marketed with the intentions of attracting the immediate attention of consumers, the messages that are displayed can permanently influence the way that people think about certain foods. Most often, consumers’ “decisions are formed on the basis of experience (e.g., tastiness) and beliefs (e.g., healthiness)... [and] promoting healthy food through extrinsic advertising cues, [such as] referring to taste...can actually increase... consumer attitudes” ([Roose & Mulier, 2020: p. 17](#)). Referencing a positive experience or outcome helps companies to make the product more appealing at the point of sale, which, as concluded by the Point of Purchasing Advertisement International, is the fastest and most effective way to advertise and sell products. However, it is also necessary to validate the ramifications that are imposed on the customer, as this information may not be entirely true, therefore skewing their view of the product on the whole.

Although the purpose of marketing is to make a product stand out against its competitors, the way that companies approach this matter is often surprisingly discreet. Subtle marketing messages are used to bridge the gap “between what consumers think they are seeing, and may believe is non-commercial content, and what in fact is being delivered as marketing” ([Jackson et al., 2014: p. 495](#)). Since marketing schemes are virtually everywhere, it can be difficult for consumers to recognize when they are being presented with dramatic over exaggerations as opposed to genuinely informative material.

Companies looking to make profit use this lapse of judgement to their advantage, often including seemingly meaningless and unbiased claims which, in reality, contain underlying messages. In the food industry, advertisements “often include claims of health-related benefits that affect the body’s structure or function... which can boost product marketability” (Federal Trade Commission qtd.

Danna et al., 2016: p. 196). Although such claims may be subtle, as suggested by Jackson, companies are often the most successful when their advertising and marketing tactics are most discreet. This approach helps companies to present information as informative rather than promotional, thus making consumers more adept to believe that the data is genuine.

Evidently, companies are willing and able to integrate marketing tactics for the fundamental purpose of generating the greatest possible profits. However, in the process of doing so, consumer attitudes can be heavily influenced.

2.2. Misleading Health Claims

Although helping consumers choose which goods will most benefit them is the primary purpose of implementing marketing and advertising strategies, companies often stray from this fundamental goal and include overexaggerated and even fraudulent claims to attract the attention of consumers. While this practice is highly profitable and therefore popular among companies and producers, it can be deceptive and misleading for consumers, posing an array of long-term implications.

Due to the lack of international parameters related to marketing ethics, companies are easily able to fabricate and falsify information about their products to make them seem more appealing to consumers. This type of promotion is especially dangerous within the food industry. Recently, “there has been a trend in food advertising toward making unproven claims that eating certain foods can improve health and even reduce the risk of serious illnesses such as prostate cancer and heart disease” (Federal Trade Commission, *Health Claims*, 2018). When seemingly didactic information is discreetly presented as marketing, it often results in a skewed image of the product’s true qualities, which can have long-lasting effects not only on how people perceive the product itself, but the concept of health on the whole. The same is true for the marketing of foods, specifically fast foods that have been directly linked to negative health outcomes such as diabetes and obesity. For example, children are often targeted by large companies due to their general lack of knowledge about making well-informed choices surrounding food, which makes them highly vulnerable. It is for this reason that within a representative sample of the Russian Federation, “85% of people urged the government to curb the directing of fast foods and sugary drinks to children in the advertising and marketing industry” (Marchenko, 2020: p. 306).

This issue is especially pressing considering that among health-related advertisements, the “overwhelming majority... (79%, n = 2630) [include] at least one health claim... [and] almost 30 percent [do] not include the DSHEA warning” (Danna et al., 2016: pp. 197-198). Neglecting to include the DSHEA warning, which requires manufacturers to notify the FDA if they intend on marketing a new dietary ingredient, proves that many of the “health” products on the market are not supported by research. This is dangerous because consumers may be in-

clined to purchase and use a product for its alleged benefits without proof that such benefits are legitimate. Ultimately, the flexibility that companies have in terms of what is legal to market and advertise leaves a great margin for false and invalid claims to be strategically included to entice consumers.

Marketing also plays a role in shaping the way that people think about food. The social phenomenon of diet culture has also inadvertently encouraged companies to latch onto specific diet trends to appeal to customers' desires. For example, "sugar has been long flag-marked... as one of the direct determinants of foods healthiness and nutrition, and consumers are prompted to reduce its consumption for health improvements" (Torrens qtd. Haasova & Florack, 2019: p. 2). It is for this reason that many companies place special emphasis on the lack of sugar in their products to make consumers believe that the given product is objectively healthier than its competitors.

Most often, the products that companies promote are not capable of profoundly improving one's health. Nevertheless, companies overexaggerate the positive implications associated with their products to promote their goods as healthy and therefore more desirable. In one study it was found that "Ads with... products [of] the lowest nutritional quality, were most likely to mention being sugar free" (Manganello et al., 2012: p. 2193). This directly contradicts the assumption described by Torrens that the sugar content of a food is a true indicator of its health and nutritional benefits. Despite this, advertisements include such claims because it elicits people to believe the good is healthy, ultimately proving that when such claims are included for marketing purposes, they are often misleading and invalid as true indicators of health.

Health claims and health related information included for the purpose of marketing can be both greatly misleading and potentially harmful for highly impressionable consumers. Nevertheless, the frequency of such claims remains overwhelmingly high.

2.3. Perceptions of Health

In recent decades, advances in science and technology have greatly expanded the pool of information related to health and nutrition that is accessible to the average person. Consequentially, society as a whole has developed a better understanding of what it means to consume a healthy diet and lead a healthy life.

Although each individual has unique dietary needs and a personal perspective on the matter, in general, "consumer awareness of diet related health consequences has advanced" (Vella, M qtd. Breen et al., 2020: p. 1). Such awareness has coincided with trends such as the 82% increase in "sales of packaged health food (HF) products... in supermarkets [between the years] 2012-2014" (Nielsen qtd. Breen et al., 2020: p. 1). These findings suggest that when products are either sold in the health food aisle or merely labeled as a "health food", consumers respond in a positive manner.

Specific ideals, practices and habits related to health and healthy eating have

also been widely accepted as general truths over time. For example, “adults most frequently described unhealthy foods as chips (French fries), burgers, sausages, and sweet foods, including cake, sweets and chocolate” (Povey et al. qtd Croll et al., 2001: p. 197). This perspective is also consistent among children, as they tend to consider “fresh produce and organically grown foods as significantly healthy... [and] fast foods as unhealthy” (Thomas, 2005: p. 96). This correlation implies that, there are certain foods associated with negative health effects and are therefore consistently approached with a negative attitude and recognized as objectively unhealthy by people of all ages. Although these foods may not have immediately negative effects on an individual, the negative assumptions which surround them remain nevertheless.

Personal experience is a fundamental component in shaping one’s perspective, meaning that the way certain foods and food groups make individuals feel, both mentally and physically profoundly influences those individuals’ ideologies surrounding health and food. For example, it has been uncovered that while “men ate more fruit when experiencing positive affect[s]... women did not” (White et al., 2013: p. 789). Evidently, specific foods did not evoke the same positive health outcomes among all demographics. As alluded to by White, positive outcomes more often depend on biological factors, supporting that each person has a unique and personal perspective in relation to which foods are the healthiest in the context of their own life.

Psychologically, there is also a great difference in what people consider to be healthy. In a study aimed to assess adolescent perspectives of health, it was found that “in boys, healthy eating was... [linked] to energy as in ‘things that make your body healthy and give your body energy’” however, “in girls, appearance concerns were more evident... [and] girls discussed healthy eating in regard to weight loss and appearance” (Croll et al., 2001: p. 196). This further validates the aforementioned conclusion that each person, and sometimes entire groups of people have different and personal perspectives of health and the foods they believe are healthy to consume. Ultimately, as each individual pursues their own idea of health, they will also develop different perspectives that align with their goals, experiences and circumstances.

Overall, peoples’ perceptions of health tend to be considerably flexible. Nonetheless, an array of social and biological factors also influence how people view different foods and what it means to be healthy on the basis of food consumption.

In conclusion, it is apparent that companies continually prey upon the general populations’ highly flexible perceptions of health using ingenuine advertisement strategies, often involving falsified data to highlight benefits of specific food products that have either not been proven or are highly overgeneralized.

2.4. Hypothesis

Individuals will perceive goods that contain elements of strategic health-focused

marketing on their product packaging as more healthy than goods that contain no such elements.

3. Methodology

3.1. Causal Comparative

For the purpose of this study, causal comparative research, which is used to identify a causative relationship between an independent and dependent variable was used.

Prior to conducting this study, the methodology was approved by an Institutional Review Board of administrators at Randolph High School to ensure the ethicality and feasibility of the study. This review board was specifically consulted because the individuals being assessed were students at Randolph High School. Considering the primary goals of this research, the most effective way to quantitatively identify how peoples' perspectives change in response to stimuli was the causal comparative approach. Using this method allows data to be collected before and after participants are exposed to the independent variable of product packaging, therefore validating that any changes in perception are attributed to the introduction of this new stimuli.

Previously, a mixed method approach including correlational and descriptive research was considered. However, because this study involves manipulating the independent variable, neither of these methods could be adequately integrated. In past studies, causal comparative research has been successfully used in various instances. In one example, it was used to determine the effects of socioeconomic factors such as income on academic achievement. In this case, an individual's income was analyzed as the independent variable, therefore making their academic achievement the dependent variable. The success of this study establishes credibility for the method itself and bolsters the feasibility of using this approach to answer the research question at hand.

To determine whether or not people's perceptions about a product's healthiness changed after being presented with marketing strategies, a digital multi-component survey was given to freshman health students at Randolph High School. Participant responses were then compiled into a data table and analyzed accordingly. Data collection was conducted via survey because this approach best protected the anonymity of participants while still being accessible, efficient and simple. Freshman students enrolled in health class at the time of the study were specifically recruited to participate. This is because a large portion of the curriculum for the class relates to nutrition, meaning that this group of students should be the most well-educated and therefore capable of making healthy choices, which was the focus of the survey. To actually collect data, freshman health teachers were contacted via email and they, as instructed, administered the survey to their students during class time to maximize participation. After pursuing this approach, the study still lacked the desired number of participants. So, freshman teachers who taught subjects other than health were also contacted and en-

couraged to send the survey to their students. It is worthy of noting that although some students were taking the survey outside of health class, all participants had the same level of education, as they were all enrolled in the freshman health course at Randolph High School at the time of the study.

The survey itself required an indication of informed consent and after this step was completed, participants proceeded to a 14-question survey that took roughly 5 minutes to complete. Three of the questions collected personal background information (name, age and gender) and the other 11 questions gave participants a side-by-side comparison of two products and asked them to decide and select which one was “healthier”. The first five of these questions contained a side-by-side comparison of nutrition labels and the responses to these five questions were assessed as the baseline for participants’ true perception of healthiness. The following six questions contained side-by-side images of product packaging. For each of packaging focused questions, participants were shown two images, one of a strategically marketed item which contained elements of health-focused marketing, namely numerical values and one that contained no such elements.

Foods with packaging that displayed numerical values were specifically chosen and classified as “strategically marketed” because in a previous content analysis of packaging for healthy foods, “over a third of ads ($n = 181$, 38%) provided numeric information about the food product, such as 98% fat free, 0 g of *trans* fats, 100% vitamin C and 25% less sodium” (Manganello et al., 2012: p. 2192). Since the inclusion of numeric values is an established approach to strategic marketing, all questions pertaining to product packaging contained one photo that included numeric values for the sake of consistency. Essentially, the strategically marketed items served the independent variable and people’s perception of the good after viewing it was assessed as the dependent variable. The purpose of having these images side-by-side was to see how the inclusion of marketing strategies influenced people to perceive one good as healthier than another.

To determine if exposure to product packaging and therefore marketing strategies had any effect on the way participants perceived a good, their selection of which good was healthier was compared before and after their exposure to the packaging. It is worthy of noting that measures were taken to ensure the validity of results. For one of the packaging comparisons (survey question #7) the results were not analyzed because there was no survey question with the corresponding nutrition facts. Including more packaging comparisons that nutritional comparisons was a strategic choice to ensure that participants were not aware that the same products were being compared in the nutrition and packaging-based questions. The questions were also randomized, and participants were entirely unaware that the same products were used for questions relating to the nutritional information and packaging. This was a strategic decision because if participants were aware of how the data was being analyzed, they may have been incentivized to look for patterns and make ingenuine selections. This, however, was combat-

ted by randomizing questions and mentioning no further details about the aims of the study.

3.2. Replicability

For researchers looking to conduct this exact study in the future, it is advised that they too implement a causal-comparative approach. To yield genuine results, it is pertinent to avoid the manipulation of any variables, as this could lead participants to develop a skewed perspective. Considering that the basis of this study is to assess changes in perspective as a response to marketing stimulus, manipulating variables would undoubtedly derail the entire study.

This study was conducted using participants of all races and genders. However, there was a restriction on level of education because all of the students who took the survey have received a formal education in relation to health and nutrition. If this same exact study were to be conducted on 7th graders who had just taken a nutrition-based health class, the results would likely be similar. On the contrary, administering the survey to seniors who had never been formally educated on nutrition would likely yield very different results. This ultimately proves that the greatest factor which influenced the results of the survey, and therefore the conclusions of the research, pertain to the level of education among participants. One potential issue that could arise for future research is accessing a demographic of people who have received this level of education. While such researchers could attempt to find a school with a health curriculum similar to that of Randolph High School, they could also replicate this study with no restrictions on level of education to address a gap in the field. This would allow such researchers to explore the way in which people who have not been formally educated on health and nutrition respond to health-focused marketing stimulus. On the whole, if this study were to be conducted in a similar environment with a similar demographic, the findings would be consequentially similar.

4. Data Analysis

4.1. Findings

To quantitatively assess how peoples' perceptions of a goods healthiness changed in response to the independent variable, product packaging stimuli, the casual comparative research method was implemented. Using this approach, 5 pairs of food products were compared separately based upon nutrition information and product packaging.

For the sake of clarity, products containing elements of marketing, namely numerical values and persuasive language will be referenced as Strategically Marketing Items (SMIs). Contrarily, products that contain no such elements will be referred to as non-SMIs. Although participants did not view any strategic marketing elements in questions pertaining to the nutritional information, all products will be classified using this verbiage. This is primarily because, regardless of whether participants were comparing elements of nutrition or packaging, each of the comparisons contained one SMI and one non-SMI product.

Product and Stimulus Type	SMI	Non-SMI
Cookies-Nutrition Facts	34	106
Cookies-Packaging	106	34
Ice Cream-Nutrition Facts	54	86
Ice Cream-Packaging	123	17
Chips-Nutrition Facts	78	62
Chips-Packaging	93	47
Pancake Mix-Nutrition Facts	43	97
Pancake Mix-Packaging	107	33
Syrup-Nutrition Facts	27	113
Syrup-Packaging	121	19

For the first set of products, which compared two cookie brands, only 24.3% of participants believed that the SMI was healthier based upon the nutritional information. However, when the same two cookie products were compared in terms of product packaging, 75.7% of participants believed the SMI was healthier. In fact, after viewing the packaging 62.1% of participants selected a response that was different from their nutritional selection and 56.4% changed their response from the non-SMI product to the SMI product. The frequency of changes in response suggests that the marketing strategies displayed via packaging did have an influence on how people perceived each good in terms of healthiness.

Similarly, for the second set of products, which compared ice cream brands, 38.6% of participants believed that the SMI was healthier based upon the nutritional information. Yet, after viewing the comparison of product packaging, 87.9% of participants ultimately indicated that the SMI product was healthier. Thus, 55% of participants switched their answer in favor of the SMI once the independent variable was introduced.

In the component of the survey which required participants to compare chip brands, exposure to SMIs, had a less dramatic but still existent effect on participants. Based solely upon nutrition facts, 55.7% of participants believed that the SMI product was healthier. Once participants viewed the nutrition facts however, 22.1% of participants changed their answer to favor the SMI and overall, 66.4% of participants selected the SMI as the healthier option. Although the results from this component of the survey are less dramatic, this is likely because there was only one element of marketing included in the SMI image, where other products contained multiple. Further, the majority of participants still believed the SMI was healthier after viewing the packaging, supporting the initial hypothesis.

In a comparison of pancake mix, 30.7% of participants indicated that the SMI was the healthier option in terms of nutrition information only. However, once

product images and therefore marketing strategies were introduced, 55% of participants changed their response and, in total, 76.4% of participants believed that the SMI was healthier.

The final component of the survey involved comparing two syrup brands in terms of both nutrition and packaging. When the nutritional information was provided, only 19.3% of participants selected the SMI as the healthier product. However, after viewing the product packaging, 72.8% of participants changed their response to indicate that the SMI was healthier and, in total, 86.4% of participants selected the SMI as the healthier option.

4.2. Analysis

Across all of the products, an average of 61.9% of participants changed their response in any way after viewing the product's packaging. More specifically, of the people who changed their response, an average of 83.4% of them changed their response from the non-SMI product to the SMI product after exposure to the elements of strategic marketing. Such figures help illustrate the extent to which product packaging and therefore numerical values and visual cues influence peoples' choices. Since exposure to the independent variable had such a profound impact on people's decision and opinions in general, it reveals the marketing does have an influence on the way people perceive goods in terms of health.

In four out of the five products being compared, the non-SMI product was regarded as healthier nutritionally. However, in all cases, the majority of participants indicated that the SMI product was the healthier choice after viewing the marketing and advertisement strategies that were displayed. Ultimately, this reveals that people are heavily influenced by numerical information and very likely the verbiage and colors that are included on a product's packaging.

Evidently, exposure to marketing strategies influenced the majority of participants to change their response from one product to another.

5. Conclusion

5.1. New Understanding

From this research, it has become abundantly clear that the way in which people perceive the healthiness of a given food product can be directly influenced by the marketing strategies presented on the product's packaging. Through the implementation of causal comparative research, I was able to distinguish product packaging as one of the primary determinants in how consumers perceive a food product. Among all five of the products that participants were asked to assess in the survey, the majority of participants indicated that the products with elements of strategic marketing were healthier than the standard products which contained no elements of health-driven marketing. Further, many participants switched their answer to indicate that the strategically marketed items were healthier only after viewing the packaging. Ultimately, this proves that generally, consumers are eas-

ily influenced by the stimulating and often persuasive effects of product packaging.

Such findings also support Rundh's proposition that "packaging [is]... an important source for creating competitive advantage in a company's offering" (Rundh, 2013: pp. 1548-1549). Evidently, products that included elements of strategic marketing gained a competitive advantage over those that did not, thus validating the established belief that packaging helps companies set themselves apart and ultimately generate greater profit.

5.2. Further Research

Within this study, there were various limitations, primarily relating to demographic and number of participants involved in the study. Since the survey that was used to collect data was administered to freshman students in a public high school, the entire pool of participants were between the age of 14 and 15 and had access to the same level of education and resources. Assessing a wider age range would provide more information on how consumers in general perceive foods healthiness, as opposed to only adolescents.

Considering the limitations of the present study, researchers looking to expand upon current findings in the future should aim to solicit a more diverse pool of participants, including a wider range of ages and levels of education. Since the present study included only a specific group of adolescent consumers, assessing an older demographic could be helpful in determining how older consumers, or consumers overall perceive goods containing elements of strategic marketing. According to the US Bureau of Labor Statistics, "food spending went from \$4698 for the under-25 [years old] group to about \$7900 for both the 35 - 44 and 45 - 54 years [old] groups" (Foster, 2015: p. 3). Evidently, older consumers generally spend more money on food, making them the primary consumers within this industry. For this reason, it would be highly advantageous for future studies to assess how this demographic responds to strategic marketing, as appealing to this demographic would provide companies with profitable opportunities.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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