RESEARCH ARTICLE

Identifying distinctions in the perception of fast food and sport shoes brands by children and adolescents based on the brand meaning model

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ABSTRACT

The article makes an effort to evaluate the influence of a brand meaning on the perception of popular products by children and adolescents on the example of junk food and sport shoes. The study involved 703 pupils of secondary schools from 11 to 18 years old. The proposed approach is based on the use of the Saaty's method, which allows to assess the influence of different factors on the perception of brands by children and adolescents and to determine the distinctions in their perception of brands of various types of products. Based on the analysis, a hierarchical structure of brand perception by children was built. It includes the brand awareness, brand logo recognition, consumer impression of brand advertising. The weighting coefficients of the hierarchical model for fast food and sport shoe brands were estimated and the results were compared, distinctions and similarities were identified in the perception of brands of various types of goods by children and adolescents. For fast food brands, perception of brand quality plays a major role, whilst for sport shoe the brand attractiveness is the most important factor.

Keywords: brand; perception; brand meaning; children marketing; Saaty's method

1. Introduction

In modern global economy brands have a crucial impact on shaping consumer behavior and driving market and social transformations. As consumers become more aware and particular about their choices and preferences, brands play a vital role in addressing their needs with innovative and sustainable solutions. In this connection homogenous groups have to be singled out, for customers from which it was revealed the tend to respond similarly to market trends and marketing strategies.

Children and teenagers are one such group who are progressive, profitable, and influential in shaping consumer decisions. They often begin by making purchases with their own pocket money, later influencing their parents' choices, and eventually becoming consumers in their own right. Moreover, they tend to remain loyal to the brands that they have grown up with since childhood. When working with the children's target audience, marketers leverage the fact that children are more receptive and responsive to marketing strategies.
than adults, who may be tired of advertising. Children may be more concerned with the brand of a product than its quality.

Therefore, it is crucial to assess the brand value of top-selling brands among children, to understand how to protect them from harmful influences, as well as to identify mechanisms and factors that will allow a deeper understanding of their perception.

A model of brand perception by children and adolescents, based on the analysis and identification of factors that influence them, is suggested and studied in the paper. The perception of brands in more than 700 schoolchildren was investigated. Well-known brands of fast food products and sport shoes were chosen as cases.

Fast food brands were chosen because young consumers are one of the rapidly developing target market for this particular type of product. Sport shoes were chosen as a completely different type of product, which is distinguished by the presence of pre-selection and duration of use, as well as the presence of certain trends in fashion and popularity.

2. Literature review

2.1. Socialization of children as consumers

In the last quarter of a century the essence of the brand concept has increasingly come down to the fact that the main foundation of the brand is its vision – a clearly formulated description of the brand image, what it should be in the eyes of consumers, employees and partners of the company[1]. When a vision hits the mark, it means that it reflects and supports the business strategy, differentiates itself from competitors, resonates with customers, supports and inspires the company’s employees and partners, and generates many ideas for marketing programs. It is the brand vision that forms the strategic loyalty of the target group of consumers to this brand. Only then one can say that a brand is really worth something, that this brand and the product it represents will have loyal customers for many years to come.

At the same time, the buyer segment is first of all selected by marketers on the basis of very specific values and needs perceived by the consumers themselves. Moreover, and most importantly, this perceived value must be so clearly expressed that the consumer will be willing to pay more for it than for a similar product that does not offer this value. The consumer must be willing to pay over a very long period of time, preferably until the end of his/her life. At the same time, it is not at all necessary that the attitude towards the brand retain the same enthusiasm and romanticism, because the strongest component of loyalty is a deeply ingrained habit, characteristic of mature, grown-up, established consumers[6].

However, not only adults can be adherents of a particular brand, because children and teenagers react no less actively to an attractive and vibrant brand. Indeed, in addition to colorful packaging and a memorable name, young consumers are offered a certain additional intangible value, be it the joy of the collected collection, aesthetic pleasure, the opportunity to express themselves in society, or something else.

From this one can conclude that children may be even more loyal to popular brands than adults, since they are more susceptible to external influences. Advertising is not only bright, interesting and attractive pictures for them, but also a source of information that they trust. And if advertising suddenly caused a less strong desire to purchase a particular product, then, most likely, this will become possible thanks to some special projects or promotions. Due to this, an attractive target market for manufacturers, vendors and brand owners may be the audience of children and teenagers, who are more emotionally engaged than advertising-weary adults[4].
Although there has been significant interest in this topic among academics and practitioners, only a small portion of published research has focused on children and adolescents as consumers and the impact of brands on this age group. But in the current situation, this kind of research is especially valuable, given the ever-increasing purchasing power of children and adolescents.

2.2. Brand awareness

Since the beginning of the last century, scientists have studied the purchasing behavior of children\textsuperscript{[9,12,14]}. McNeil\textsuperscript{[12]} was found that the older a child gets, the more independent he makes decisions. If parents buy goods for children under 3 years old according to their taste, then already at 4 years old the child can express his/her own opinion on it\textsuperscript{[7,9,12]}. School-age children can already make purchases with their pocket money. From 8-12 years of age, the child is aware of the advertising message and can consciously ask parents to buy the advertised product, and even influence family purchases by participating in purchasing decisions\textsuperscript{[11]}.

According to research conducted in the field of children's marketing\textsuperscript{[13]}, young consumers begin to recognize and associate familiar brands, packaging, logos, and symbols with products at the age of 4-5, especially if the brands use bright colors, interesting images, or popular characters.

Brands play a crucial role in competition for children's attention and their parents' money. Research shows that young consumers are heavily influenced by brand advertising on clothing, shoe, junk food, etc. These products are not only affordable but also highly attractive to children. As a result, children develop attitudes towards specific brands from an early age. For example, a study by Young and Claassen\textsuperscript{[24]} examined the recognition of thirty different items among children and adolescents, including junk food. The study revealed that children are less likely to recognize brands of “healthy” products than, for example, brands of ice cream, sugary drinks and chips. It means that they choose products based on regularity of purchases and brand recognition rather than nutritional value\textsuperscript{[24]}. This highlights the importance of brand recognition and marketing strategies for companies seeking to capture the attention of young consumers and their parents.

In recent years, global brands have been competing with local (national) brands for market share among children's products. According to Kovacs, et al.\textsuperscript{[11]} global brands such as Lego, Hello Kitty and Pokemon are among the most recognized toys brands among children worldwide. However, local brands also have a significant presence in their respective markets, as they are often preferred by parents who value familiarity and cultural relevance. For example, in China, local brands such as Tingyi and Master Kong dominate the instant noodle market are popular among parents and children alike. This highlights the importance of understanding local market trends and preferences in addition to global brand recognition.

In McNeal\textsuperscript{[12]}, Kovacs et al.\textsuperscript{[11]}, Robinson, et al.\textsuperscript{[14]}, Roberto et al.\textsuperscript{[13]} and others, it has been established that children as young as two years old are capable of forming impressions of certain brands, by the age of five or six, they can recognize familiar brands, logos and symbols. Children are highly susceptible to the influence of branding, and this is especially true when it comes to food products. Despite this, there have been relatively few studies conducted under controlled laboratory conditions to investigate the impact of branding on children's food preferences. However, the limited research that has been carried out suggests that global brands have a powerful effect on children's minds.

For instance, the researchers Robinson et al.\textsuperscript{[14]} have found that food presented in a McDonald's branded package elicited a more positive response from the children compared to the same food presented in an unbranded package, even when the food in question was a healthy option like carrots. This demonstrates the strong impact that branding can have on children's perceptions of food, even when the food itself is identical. As such, it is important for marketers to be aware of the power of branding when advertising to children, and for parents to be vigilant in monitoring their children's exposure to advertising.
The importance of brand visualization in children's minds cannot be overstated. As children accumulate more personal experience interacting with brands, their visualization of those brands may decrease. This is an inverse trend observed by some researchers\cite{4, 7, 18}.

Wang and Li\cite{22} showed children product triads that displayed a product's brand and other perceptual features. For the 9- and 11-year-old children the product's brand became the dominant feature in their product categorization compared with other perceptual attributes.

For children and teenagers, brands hold a different value compared to adult consumers. Until the age of 12-13, children tend to prioritize the physical aspects of products, such as design and packaging, and communication and branding, over abstract brand values or images. That is why they more trust to their senses, such as touch, sight, taste, and hearing, which emphasize the importance of strong and memorable branding for products aimed at young consumers.

3. Methodology

It should be noted that a large set of different ideas and methods are currently being used to assess the importance of brands by consumers. Basically, such approaches involve taking into account the interactions of a number of factors that affect the assessment of the brand by the target group. These include, for example, customer-based brand equity, which is a key concept in marketing, is based on the idea of brand knowledge\cite{10}. On the other hand, brand awareness refers to the understanding of the brand, which is manifested in the form of consumer experience of interaction with the brand, and based on the results of marketing activities. At the same time, the experience of consumers is made up of the feelings, images, thoughts and ideas that they associate with the brand. Other important indicators of brand meaning include brand associations, brand image\cite{11, 10}, brand awareness\cite{10}, and brand attitude\cite{3}. Together, these indicators help marketers to understand how consumers perceive and respond to a brand, which is essential for building and maintaining strong brand equity.

3.1. Brand meaning model

The process of brand perception is complex and multi-stage, including various aspects that characterize the consumer and his/her interaction with brands. Therefore, when constructing models of brand perception by children and adolescents, it is necessary to take into account the influence of all such factors in order to ensure, on the one hand, the completeness of the representation of the corresponding model, and on the other, the statistical significance of the results obtained. Based on previous research by the authors\cite{20, 21}, a hierarchical structure was developed, including the definition of the main characteristics of the brand perception process, such as brand awareness ($X_1$); brand logo recognition ($X_2$); consumer impression of brand advertising ($X_3$).

Brand awareness $X_1$ may be considered as an ability of a consumer to identify the trademark within the particular product category to the extent sufficient for making a purchase\cite{10}. A brand can be scrutinized to have achieved consumer awareness if its name can be remembered without any assistance, either by specifying a product category or by submitting from a list of trademarks in the same category. Thus a consumer who can remember a brand in any of these scenarios can be deemed aware of that brand.

The factor of brand logo recognition, $X_2$, pertains to the degree to which consumers can visualize the brand logo when it is placed directly on the product or advertising materials. This factor is a significant component of brand knowledge according to Keller\cite{10}. It is important to note the distinction between a trademark and a logo, despite their similarities. While a trademark may take the form of any symbol or shape, a logo usually includes the company and brand name as well\cite{2}.
Factor X₁ (consumer impression of brand advertising) is largely defined by a total influence of marketing incentives on the consumer behavior, as well as by a number of psychological features of this influence (the so-called “emotional component”). According to Feltham[5], this factor represents a set of the following factors: 1) “ethos”: persuasive appeals that concentrate rather on the source than on the message; 2) “logos”: information about a concept which a consumer forms from belief; 3) “pathos”: emotional/affective appeal.

When studying brand perception, the process of constructing a model of brand meaning, in which attitude towards a brand is determined by the cumulative interaction of the factors listed above, is essential, since such a model will allow us to assess the degree of perception of each individual respondent. Herewith, the output factor Y itself (attitudes towards the brand) is also of hierarchical structure specified by second-level factors: brand subjective assessment (Y₁); brand attractiveness (Y₂); brand acceptance (Y₃).

The term “attitudes towards brand” refers to the subjective perceptions and evaluations that consumers have towards a brand. It is comprised of several components including brand subjective assessment, which reflects the extent of correspondence of the set of features and properties of products to the consumer needs and expectations, and is connected with certain associations related to the brand[6, 10]. Brand attractiveness is another component, which has an obvious impact on a brand's success and can build a close relationship with customers' potential decisions[8]. Perceptions of the brand's attractiveness by consumers appear to influence the closeness of this relationship to some extent, in particular, the impact of brand attractiveness on attitudes towards advertisements and purchase intention[23].

Brand acceptance (Y₃) exists as soon as consumers consider a specific brand as an alternative and find it acceptable among similar products. The brand complies at least with the minimum expectations desired of the product[11].

Thus, in the paper, the brand meaning is determined by how the brand is perceived by the children and adolescents at a conscious level and how the brand resonates with them at a semi- or subconscious level[20].

In turn, basic characteristics (Y, X₁, X₂, and X₃) consist of lower levels factors. The eventual form of hierarchical structure for brand meaning model is presented in Figure 1.

![Figure 1. Factors structure for brand meaning model. Source: Own research](image-url)
The main purpose of the study is to evaluate the characteristics of the brand meaning model for two types of products – fast food and sport shoes based on the survey results, as well as to construct an interpretation of the results obtained, make comparisons and draw conclusions about the similarities and differences in the perception of various brands by children and adolescent target audiences.

3.2. Research instrument

Within the framework of the ongoing research, in 2017-2019 in Novosibirsk schools, the research team supervised by the authors conducted a survey of children aged 11 to 17 years old. The survey suggested the children express their attitudes in connection with fast-food and sport shoes items on the basis of logos and custom tailored advertising images among popular global brands as McDonald’s and Nike.

Self-reporting questionnaires containing 27 questions, as regards perception of the brands offered and their characteristics were circulated; herewith, the Likert scale of importance and semantic differential\(^{[19]}\) were used for measuring behavioral and emotional responses.

Herewith, the respondents were held out identical advertising images depicting different logo options (with and without logo) for each brand, which provided for homogeneity of the research.

3.3. Sampling design and size

To select the respondents, the idea of multilevel cluster sample\(^{[19]}\) has been implemented: at the first stage, Novosibirsk schools participating in the research were defined at random; at the second one, classes (from fifth to eleventh grade) were selected in the random way. Consequently, 778 school students of secondary general education institutions have been surveyed. The statistical analysis and verification procedures found 703 of 778 (90.4%) questionnaires valid because some of them were either incorrectly or partly filled out.

Since in the school classes where the survey was conducted the number of students was different, the final distribution by ages appeared to be not quite uniform. To provide a clear picture of the sample target audience, the total number of children and adolescents surveyed was distributed by age cohort as follows: 30.9% 11-12 years old; 36.7% 13-15 years old, and 32.4% 16-18 years old. The final number of participants in the survey was 703 students from secondary educational institutions.

3.4. Data analysis method

Multivariate statistical analysis methods were used to process the survey results, which ensured the validity of the results obtained and expert assessment\(^{[16]}\). It was decided to implement the well-known method for brand meaning assessment based on application of the expert judgments and analytic hierarchy process (AHP), invented by Thomas L. Saaty (1980). It allows decomposing a complex multifactor process into components by assessing the contribution of each of them (called weights, or importances) to the resulting factor values.

AHP is widely used in various fields, including industry, scientific research, medicine, and economics, because of its simplicity and clearness. Saaty's approach\(^{[16]}\) utilizes pairwise comparisons to disentangle complex assessments through matrix algebra, providing a sound and affirmed basis for obtaining reliable expert’s answers.

The values of three pivot factors \(X_1, X_2, X_3\) cannot be accurately determined by answering a single question (such as, "How familiar are you with our brand?"), due to its broad and general nature. Therefore, it is necessary to create a hierarchical structure that will allow us to represent the process of forming factor values explicitly.
Saaty's matrices are used to reflect the respondent's opinion on the importance of elements in a hierarchical structure. The values in such matrices may vary significantly. This can be due to strongly expressed opinions, or the overall heterogeneity in respondents' answers. To create a general model, it is reasonable to use averaging procedures, such as calculating the median values of the corresponding elements of Saaty's matrices.

3.5. Findings and analysis

Based on the results of the survey, children's opinions about fast food brands and sport shoes were obtained. For each completed and valid questionnaire, survey data were digitized and, by applying the Saaty's method, used to estimate weighting coefficients characterizing the interaction of elements of the hierarchical structure. Using averaging procedures, generalized values of these coefficients were calculated; the results are presented in Table 1.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Y1</th>
<th>Y2</th>
<th>Y3</th>
<th>X11</th>
<th>X12</th>
<th>X13</th>
<th>X21</th>
<th>X22</th>
<th>X23</th>
<th>X31</th>
<th>X32</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight for fast-food brand</td>
<td>0.57</td>
<td>0.29</td>
<td>0.14</td>
<td>0.58</td>
<td>0.31</td>
<td>0.11</td>
<td>0.49</td>
<td>0.20</td>
<td>0.31</td>
<td>0.57</td>
<td>0.23</td>
</tr>
<tr>
<td>Weight for sport shoe brand</td>
<td>0.14</td>
<td>0.62</td>
<td>0.24</td>
<td>0.42</td>
<td>0.38</td>
<td>0.20</td>
<td>0.66</td>
<td>0.17</td>
<td>0.17</td>
<td>0.14</td>
<td>0.12</td>
</tr>
</tbody>
</table>

Source: Own research.

The values expressed by numerical indices estimated the importance of the structure elements for more common factor higher in the hierarchy. Consequently, a hierarchical structure (presented in Fig. 1) aimed for constructing a model of children’s brand meaning has been built[17, 20]. Table 1 provides values of the coefficients of the hierarchical structure for two types of goods – fast food and sport shoes. Direct comparison of the obtained estimators allows us to notice significant distinctions in children’s perception of different brand products.

When children and teenagers choose a brand of sport shoes, the main influence is the factor “brand attractiveness” (factor Y2, 62% of importance), while when choosing fast food – “brand quality perception” (factor Y1, 57%). This may indicate that only the name of a sport shoe brand that seems popular and attractive from the point of view of a child audience overshadows both the brand quality perception and the brand social approval.

The next factor for comparing children's attitudes towards brands is indicator X1 (brand awareness). It can be noted that for products of both categories the ranking of the components of this factor turns out to be the same: the most important factor is X11 (brand recognition), the second most important is X12 (brand recall), and the least important is X13 (brand’s past purchase and use). However, the importance of the first two factors varies least in the case of shoe brands (42% and 38%, respectively), and differs almost twice for fast food brands (58% and 31%), which means a significant the prevalence of the “brand recognition” indicator in the case of purchasing fast food. Such situation arose due to the fact that in Novosibirsk the number of McDonald’s restaurants at the time of the survey was small, and many children did not have personal experience of consuming relevant fast food products.
From the point of view of positioning and advertising campaigns, factor $X_2$ is essential (attitude toward the brand by logo). When comparing the results for the two product categories under consideration, it can be seen that for shoe brands the strongest factor is $X_{21}$ – the brand logo emotional perception, which accounts for two-thirds of the importance, while in the case of fast-food brands the importance of this factor is just under 50%. This situation suggests that the emotions that a logo evokes in children are more important for shoe brands, which is logical since they are constantly present on the child who wears the corresponding shoes, while fast food logos are more likely to be found in places where people eat, or next to them.

The most remarkable results were obtained regarding indicator $X_3$ – attitude via brand advertising. For fast food brands it turned out that the most influential component is the advertising pathos (42%), and the least influential is the logos advertising (12%), while for sport shoe brands the situation is exactly the opposite: the most important is the logos advertising (49%), and least – the advertising pathos (8%). This can be explained as follows: sport shoes are a pre-selected product, which is also much more expensive compared to food products. Therefore, buyers approach their choice more carefully, taking into account, first of all, the long-term prospects for using the product. In turn, fast food products have a significant emotional appeal, which is emphasized when developing advertising materials, since the purchasing decision is made more impulsively than when buying sport shoes.

4. Conclusion

When studying the perception of brands by children and adolescents, it is important to understand that the brand meaning can vary considerably depending on the type and properties of the goods and services purchased and consumed. Products that are intended for children have specific attributes that producers must take into consideration. These attributes include a high degree of turnover, which refers to steady demand products such as fast food, drinks, snacks, chewing gum, as well as shopping goods like footwear, clothing, smartphones, different accessories, etc. Additionally, these products should comply with recent trends in teenage fashion; have a high degree of ergonomics, which ensures usability, and a flexible pricing policy that makes the products affordable to all young consumers.

The purpose of the study was to identify distinctions in the perception of brands of different types of products by children and adolescents. The results obtained give grounds to draw the following conclusions. For fast food brands, perception of brand quality plays a major role, whilst for sport shoe the brand attractiveness is the most important factor. This finding can be explained by the fact that sport shoes are a relatively expensive, durable product and an attribute of a fashionable lifestyle, so attractiveness is a major factor in brand perception. Conversely, when children and adolescents choosing fast food brands, it is important that their expectations from the food they buy (taste, appearance, satiety, pleasure, etc.) are justified by the promises of the brand.

When assessing attitudes towards fast food brand advertising, it turned out that children and adolescents are most influenced by advertising ethos, since reliability, honesty and trust in the brand are important to them. At the same time, when choosing a brand of sport shoes, the main influence on the attitude of the children's audience is advertising logos, which is obvious when choosing durable goods. In this case, the persuasiveness of advertising is ensured by the facts, logic, reliable opinions of experts or famous characters, etc.

As for advertising pathos, the following distinctions have been identified in children and adolescents’ attitudes towards brands: when choosing fast food, the main indicator is the emotional response to advertising, which is quite logical and is explained by receiving pleasure through food. At the same time, for sport shoe brands, the main indicator is motivation to purchase, since sport shoes are a pre-selection product, which is determined by fashion trends, level of socialization, lifestyle, etc.
The constructed model allows not only to identify distinctions in the perception of brands by children and adolescents, but also to take into account when sellers, vendors and manufacturers of relevant products interact with the target audience.

When vendors try to appeal to children and teenagers, they sometimes resort to aggressive marketing tactics, exceeding moral standards and social norms. Such strategies can have a potentially negative impact on children’s psychology, which may make children and adolescents more likely to consume unhealthy foods or purchase certain types of products and services that may compromise their health. Therefore, manufacturers must be mindful of their moral responsibility when marketing to children and take care to avoid crossing ethical boundaries.

Comprehending the significance of brands among children and teenagers is vital for vendors looking to boost sales, as well as institutions involved in developing regulating policies in education, social security, public health, and commerce. It is crucial to take into account the interests of children as consumers, given their high susceptibility to the impact of marketing and advertising. As they mature, they evolve into full-fledged consumers, and the purchasing patterns and preferences they develop in childhood may persist into adulthood. In this view, it is essential to ensure that their interactions with brands are conducted in a manner that is both informative and responsible.

Marketing to children has raised concerns about potential negative effects on their development, such as materialism, unhealthy habits, and pressure to conform to certain gender roles or stereotypes. In this connection, it is essential to clarify the challenges and issues associated with children’s marketing and to develop strategies to mitigate any harmful effects. In addition, it is meaningful to support responsible marketing practices that prioritize the well-being and development of children.

The issues explored in the article are of interest for further study, since, apparently, children’s consumption of various goods and services is not limited only to food, shoe, and clothing. Identifying the most important components of the perception of brands by children’s audience will allow vendors and sellers to regulate their marketing activities and will bring the properties of the goods and services offered closer to those that are most in demand by young consumers. It should also not forget that the perception of brands often depends on certain marketing incentives, including the positioning of manufacturing companies, the focus of advertising campaigns, presence in online and offline environments, etc. It should be taken into account that children and teenagers are a relatively unprotected segment of society, more susceptible than other age groups to the influence of unscrupulous companies that do not use health warnings about certain goods and services, as well as those that abuse the use of credence claims.

Conflict of interest

The authors declare no conflict of interest.

References


