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THE COLOR OF CLEANING: THE COLORS OF SANEANT PRODUCTS IN BRAZIL

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Summary

The sanitising product market is one of the most competitive in retail pricing, making differentiation an important strategy to consider to increase the attractiveness of the product in the eyes of the consumer. Considering that most of the products are not immediately perceived in the gondola, the attractiveness of the packaging becomes even more important, because it becomes the "silent seller" of the product, where color has decisive importance in attracting attention and transmitting the functionality of the product to the consumer. Being the color part of the process of human interpretation, it can have different meanings depending on its tonality, luminosity and saturation and where it is applied. This research mapped the colors used in different sanitizing products in Brazil through the collection of data at points of sale and information available online and correlated them with the meanings presented in detailed color studies, describing the most present and accepted colors in the segment. The analysis allowed the understanding of the most used colors and their different meanings depending on the category of products in which it is applied, demonstrating that the same color can present completely different connotations in the same market.

Keywords: domissanitários; packaging; attractiveness, retail; meaning.

1. Introduction

Competitiveness is a reality among companies, where they use strategies to meet their needs and satisfy their customers (Silva, 2003).

According to Porter (2004), competitiveness is related to three competitive strategies, which can help companies to face such forces and outperform competitors. Such strategies are: cost leadership (which aims to reduce them so that the product brings more margin to the company), differentiation (where the company cares less about costs and tries to make the product unique) and the focus (where efforts are directed to a specific niche of operation, offering its products to almost exclusive group).

When it comes to sanitarian products it is known by the companies that produce them that the costs are usually already reduced: the formulas are usually composed mostly of water, followed by the other components that will provide the promised benefits on the label.

So in the face of so many products in the gondola, which mostly competes in functionality and has the reduced cost, what would be the strategy to attract the eyes of the consumer so that one of these becomes unique and is chosen in the purchase?

2. Theoretical Review

The alternatives then become the focus or differentiation of the product.

According to Kotler (2000) two effective differentiators are: the characteristics of the product/service and its design. Opting for product differentiation this can be done by using raw materials that deliver additional benefits, but that will require time and testing of development, performance, stability and costs with registrations or notifications. Opting for design can be considered labeling and packaging, which will also require time and costs in its development. In this way the decision of how to differentiate the product becomes complex in its definition. About 1/3 of the packages (Scarsiotta and Giuliani, 2005), are not noticed at the point of sale. Thus, it is coherent to think about starting the differentiation by the attractiveness of the packaging, since if the consumer does not notice it, he will not even know what the product is about.

The product packing then becomes the business card connecting the merchandise to the buyer, becoming the silent seller. And in the packaging, color is the aspect that first reaches the buyer's eye (Farina et al., 2011).

It was detected (Csillag, 2015) that the choice of colors in products is often performed by intuition, personal taste of professionals, or copy of what already "works", but this should be based and supported by objective criteria, given its importance in the process of choice and purchase. In this way, it becomes very important to understand how colors can be powerful ally in the process of attractiveness and how they will communicate with the target consumer, as well as the best options according to the message that the product wants to convey.

In order to achieve this basis, it is also important to know what color is, its perception process in the human eye and the cultural characteristics generally involved.

About color: the color has no intensity of its own because it depends directly on the light and is part of it. But light is colorless and only acquires color when it passes through the structure of the visual spectrum; in this way the color is not light or matter but sensation. Light is a form of electromagnetic radiation and its wavelengths range from hundreds of meters to fractions of nanometers, in which only one band of this range of waves is visible to the human eye: between 380 and 760 nanometers (Csillag, 2015; Farina et al., 2011).

Still on the light, it has three characteristics: tone, saturation and luminosity. Tone is what is commonly known as color: being related to different wavelengths. Saturation is when the color is exactly at the corresponding wavelength in the solar spectrum (relating to the variation of color purity). Luminosity is the ability to reflect the white color, that is, it varies from light to dark (Farina et al., 2011).

Understood what is color in a generic way, because much could be described and explored according to numerous studies, it is necessary to also enter into the knowledge of human visual perception. In the case of human vision, the main region in the brain responsible for processing the stimuli captured by the eye is the visual cortex in the occipital lobe. For the first step of visual analysis to occur in the visual cortex, specialized neurons are needed (Csillag, 2015).

The luminous information captured by the human eye is part of the pattern of neural activity that represents the object and for the brain that is the object. So the perceived object is always a human interpretation (Csillag, 2015).

So when it comes to an interpretation, it is worth stating that the reactions that the same color causes may vary according to customs, habits, geography, religions, among others. Green, for example, can represent nature and freshness, but it can also mean poison or something horrifying (Heller, 2000).

The objective of this research is to map and understand which colors are most used in the Brazilian health market according to the product category, in order to understand the characteristics of this market, how colors are positioned and correlate, as well as their meanings, being a study of support and relevance to researchers and professionals in the segment.

3. Material and Methods

The research was carried out through two stages, using qualitative and quantitative methodologies, using primary data (from a face-to-face market study conducted in several points of sale in Brazil from Oct. 2019 to Mar. 2020) and secondary (through the use of tools and online platforms that enable visual access to products for sale in Brazilian retail over the years).

For the research of secondary data, the sanitist products launched and marketed in the last three years (2017 to Mar. 2020) were considered. This market research aligns with the concepts described by Mestriner (2005), where the importance of the briefing is highlighted. In this concept, the briefing consists of the survey and presentation of various information that allows

to know the product, its characteristics, packaging, the market in which it operates with competitors and consumers who buy or use it.

According to studies by the Project Management Institute [PMI], cited by Mestriner (2007), about 80% of projects in the world fail and this frightening number is inherent to definition problems at the beginning/scope of the project – which end up resulting in failures responsible for this statistic.

A poorly made briefing (Mestriner, 2005) gives the project a wrong start, which makes it more difficult to fix. It is very important a well-done briefing, with clear and relevant information, which becomes a key point for building a successful development.

With regard to packaging and colors, according to Mestriner (2007), field study is mandatory. For this study the ideal is that more than one point of sale be visited, including large and small locations. Field study observations help complete and clarify the project briefing.

Although this research does not characterize a briefing, as it is not intended for the development of a specific product or for comparisons for commercial and advertising purposes, it has elements of consultation at national level to those who need to better understand how the cleaning market is positioned in terms of color and packaging.

During visits to the points of sale and obtaining information online, the products were cataloged with the information: product, brand, manufacturer company, date, price, fragrance, packaging material, packaging type, predominant color, and state and photo.

For such information, standardization parameters were defined. For 'andstado' defined the place in visitation, the place in which it was manufactured (in the case of online research) or the term "global" (for multinational brands observed in several points); for 'color' the predominant color was defined (which attracted the most attention in the product) and in the case of products that used transparent packaging, the colors refer to the color of the liquid/product; for this analysis, pink and red were considered as a single color, due to the difficulty in detecting the exact tint in the products evaluated by secondary sources; for 'packaging material' the information described on the packaging (such as the type of plastic) was used and for 'type of packaging' the description referring to the transparency or opacity of the packaging (which is linked to the color analysis) was used.

The information was organized in a standard spreadsheet, according to the model in Table 1.

Table 1. Standard for organizing the data obtained

Product	Brand	Manufacturer company	Date	Price	Fragrance	Packaging Material	Packaging Type	Colour	State	Photo
Total										

Source: Original search data

A total of 618 products were evaluated in the following categories: Bleach, Softener, Deantling, Disinfectant, Dishwasher, Liquid Washing, Washing Powder and Multipurpose in 18 "States" (17 States + Global).

The categories were chosen according to the relevance in volume, according to the data of the 2018 Yearbook of the Brazilian Association of Hygiene, Cleaning and Sanitising Products Industry for Domestic and Professional Use [ABIPLA], compiled in Table 2, considering the first six categories in order of magnitude.

Table 2. Industry performance by category

Category	Volume Tons
Detergent Washes clothes	971.731,00
Bleach and whiteners	670.770,00

Softener	503.005,00
Detergent Dishwasher	479.366,00
Disinfectants	273.758,00
Multipurpose	189.974,00
Bar soap	158.186,00
Aerosol insecticide	89.455,00
Electric insecticide	29.151,00
Bathroom cleaners	13.576,00
Insecticide trap	9.695,00
Spiral insecticide	4.235,00
Liquid insecticide	3.105,00
Steaming gas insecticide	348,00
Total	3.396.355,00

Source: Original search data

Although in ABIPLA data (2018), some categories have not been separated, such as bleach and whiteners, detergents wash clothes (where there is no separation by powder or liquid) and multipurpose (which includes defatters), color analysis was separated, since there are considerable differences when the data are analyzed separately.

Of the evaluated products, relaunches and the same products were considered and included in different packages (such as the same version of washing clothes in a 2 L package and its respective refill and bleach in a 5 L and 1 L packaging).

Specific legislations of the cleaning sector were also consulted, with the objective of confirming recommended and prohibitive parameters in each category, as these are directly related to the absence of color in certain categories.

4. Results and Discussion

Based on the organization of the research data it was possible to verify which colors are most used in the main categories of the cleaning market and relate them to the meanings according to the use and objective of each product.

Color separation was also used to verify whether the trend of color use is similar in the various States.

To discuss the possible meanings of colors by category, three colors per product were selected, always evaluating those with the highest presence in the evaluated product.

With regard to materials and packaging presentation, it was also important to know specific laws of certain categories, as well as inherent needs of some products. The sanitary water category, for example, has technical and regulatory requirements in its formulation that make it impossible to use certain materials in its formulation and defines mandatory packaging and marketing characteristics, making this category much lower than the other in a variety of colors and materials.

4.1. Color analysis by region

Initially the colors were broadly separated (without considering the category) by region.

Since most of the sampling was carried out in São Paulo [SP], this State presented more products compared to the others, but the use of secondary data (from digital sources) allowed to increase coverage in obtaining the data due to the limitation of trips to other States and visits to points of sale due to public health issues that occurred in 2020.

With the obtaining of secondary data, although the State of Sp presented greater relevance, it was possible to significantly include the other States and the "Global" products (which were widely found in all regions) in the analysis, as shown in Figure 1.

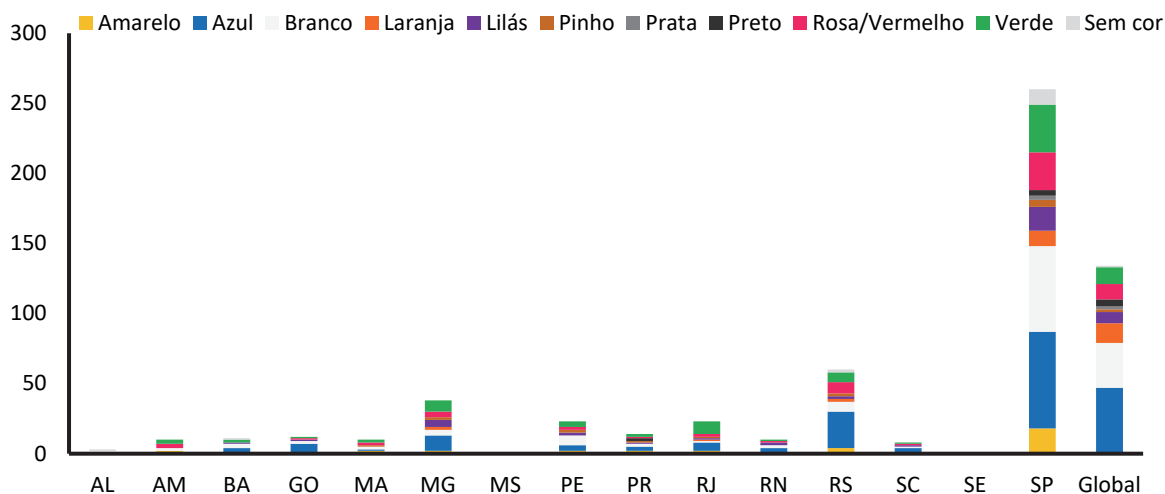


Figure 1. Colors by region
Source: Original search results

4.2. Analysis by category

After the first analysis, in which most colors were common in the various States, the colors were separated by categories for occurrence analysis and related meanings.

4.2.1. Bleach

Because it is an irritating product that has peculiar technical characteristics (different from other categories), as well as low added value, the sanitary water category does not have a wide variety of colors, materials and packaging formats. Still with regard to technical/legal characteristics, according to RDC 110, of 6 Sep. 2016 this category is prohibited from using dye in the formulation, so the results presented in Figure 1 are exclusively related to the colors of the packaging, the presentation of which is always opaque.

For this category, 33 products launched in Brazil were analyzed. Of the 33 products, 29 used HDPE plastic packaging, three used PET plastic and one did not inform the type of material.

In this category, few colors are used to promote the material, The presence of white color according to Heller (2000) and Farina et al. (2011) has in its meanings the concept of clean and sterilized, referring to clothes from medical environments and the visualization that the environments and clothes are in fact clean (because it is more difficult to hide a dirt or imperfection on a white surface). The use of this color in the category is then aligned with the concept of whiteness offered by the product, which makes white clothes whiter, as well as surfaces of the same color and clean environments and free of microorganisms.

The color green according to Farina et al. (2011), refers to nature, freshness, life and health, concepts aligned with the objective of cleaning and disinfection offered by the products of the category. But this color may also refer to the low added value of the product, because the packages in this category that presented green color were more popular and cost less than the other ones – with packages that clearly communicated their most popular and low cost appeal because they were less attractive. The shade of green used in this category resembles the green described by Heller (2000), citing the tone described by people who do not like this color or

describe it as "ugly green": the blackgreen and the dark green and the "bottle green", giving a negative connotation possibly referring to the memory of low added value products that historically use this shade, as the sanitary water itself.

4.2.2. Bleach

Unlike the category of Bleach, the category of Bleaches has no legal limitations regarding the use of dyes in the liquid product, but because it is a composition usually of oxidizing character the inclusion of these becomes technically challenging and rarely seen, considering that the structure of the formulation attacks the chromophore groups of the dyes destabilizing the color. Even with such chemical/technical limitations, because it is a category of higher added value, it was observed the use of elaborate and colored packages (where the color is always in plastic, being possible to use the visual appeal without harming the chemical stability of the product). For this category, the 31 items evaluated had opaque packaging (following the requirement of RDC 21, of November 28, 2019 that regulates this class of products), distributed in the materials: 21 in HDPE plastic packaging, seven in uninformed plastic, two in PP plastic and one in PET plastic.

In this category the predominant color was the white color, although in most of the packaging that used it, pink and/or lilac elements were found.

The presence of the white color in this category follows the same connotation of the cleaning appeal of the previous category, given the purpose of using the product, which is to make the clothes whiter and free of stains.

The use of pink, in this category always as "Pink" (almost fluorescent), is associated with what Heller (2000) describes, among its various meanings around the world, as an aggressive, strong and glaring color. It is also associated with the creative or even flashy character of color, which is impossible not to be noticed in the gondola.

Thirdly, the color was green, which closely resembled products categorized as Sanitary Water (both in the type of packaging and shade and in promotion), so possibly classified as bleach for reasons of positioning or regulation. As described in the previous category, these products have a lower cost than the others – with packages that clearly communicated their most popular and low-cost appeal because they were less attractive.

4.2.3. Clothes softener

The category of Amaciantes presented the highest number of products (155) and variety in types and forms of packaging, aligned with the positions that ranged from common to glamorous (referring almost to fine perfumery).

For this category, the use of HDEP plastic with 105 occurrences predominated, followed by 35 in PET plastic, 13 in unreported plastic and two in wrinkled white card. For the latter type of packaging, the final product is noted in presentation different from the other ones, being presented in sheets and not in the liquid form as usually this category of product is.

In this analysis the packages were well diversified: 66 in transparent/translucent packages (in which it is completely possible to see the color of the liquid) and 89 in fully opaque packages. For this category there are no specific requirements and / or limitations of the use of dyes and packaging materials, enabling greater creativity. In this category the predominant color was blue, almost always aligned with the appeal of "softness" and "cuteness".

According to Heller (2000) blue is the favorite color of about 45% of the population (both men and women), and is described as the color of sympathy and harmony, among other meanings (which pass through the cold and fantasy).

Also according to Heller (2000) these feelings may be associated with very broad concepts, which lead to colors being associated with the event and experiences. For example, the sky is blue, so this color can refer to the divine and the eternal.

Being blue the color of sympathy and harmony, this brings good feelings and comfort to those who see it, being related to the appeals of the category that sell "cuteness" and softness (directly related to comfort and harmony to the touch).

According to Farina et al. (2011), blue is also the color of the dream, and this meaning is related to products of this color that use photos of babies sleeping comfortable and soft sheets.

The second color most present in the category was the white color, but different from the meanings described in the categories previously evaluated, the white of the softener is not related to cleaning and disinfection. Obviously the clothes after being washed and softened will be clean, but this cleaning is not given by the softener and the consumer recognizes this. In this category, white is related to the concept of peace, peace, innocence, purity and less aggressiveness, described as some of the meanings by Heller (2000) and Farina et al. (2011). In this category, most of the products found in white color referred to "baby" products, mild and less aggressive products and even the non-use of dyes (as flashy for consumers who prefer more 'natural' products or eventually have allergies and irritations and associate colorless products with more 'clean' and soft products). In this color are also found appeals of 'cuteness' and softness, linked to the appeals that refer to the softness of cotton (which is originally white). The third color found was the rose. Contrary to what was described in the category of Bleaches that featured the pink "Pink", the softener rose is less intense, talking with the appeals of softness and "cuteness" common in the category. The rose used in the softeners is in accordance with the described by Heller (2000), who describes it as the color of charm, kindness, of the kind and often associated with the childish, soft and small. Some of these adjectives were found in the very names of some of the pink softeners, confirming the name/feeling association.

4.2.4. Degreaser

The category of degreasers showed a clear preference for citrus colors (orange and green), but with a high occurrence of packages with predominance of white (but this, almost always accompanied by citrus colors).

In this category, 40 products were evaluated, with predominance of HDPE plastic (23 occurrences), followed by 11 PET Plastic, three in Aluminum and three in Unspecified Plastic. Thirty-four packages were opaque and six transparent.

For this category there are no specific requirements and / or limitations of the use of dyes and packaging materials, enabling the use of various colors. The predominant color in the category of defatters was the color orange, almost always combined with the citrus fragrance of the same name.

Among the meanings associated by Heller (2000) for the color orange, are "the color that is pure flavor" (referring to foods that have coloring and are quickly remembered when the color is seen, such as orange fruit for example).

Already according to Schmitt and Simonson (2000), orange tends to be perceived as more energetic and relaxed, drawing attention to the product.

Although no studies have been found that directly associate the use of orange with cleanliness, this color draws attention in the gondola and may be in the subconscious of the human being as something that degreases and "cleans"; just see a typical Brazilian dish and its accompaniment: the feijoada accompanied by orange. Feijoada is a fatty dish and sometimes heavy to digestion – and the ingestion of an orange after this dish is usually offered to 'clean' and decrease the feeling of fat in the mouth; this episode may suggest a correlation of color with defatting power.

In this color, the presence of a multinational of great relevance to the sector can also contribute to the large number of products in the same color in the category.

The second most observed color was white. Considering the appeal of the product, the white of the Desengordurante is between the white of the bleach (which refers to cleaning and sterilization) and the white of the softener (which refers softly). In this color and category, products with "free of" appeal, with natural components, more vegetalized formulas or with components from the food industry gain relevance (such as vinegar-based products for example), and white, subtly related to products with "less chemicals" in some of the products analyzed, being closer to soft white.

The third most observed color was green. Unlike previous categories in which green was observed in a more popular way and with lower value, the green of the defatters refers much more to nature, to the "clear" and the fresh leaves, adding value to the product and combining with the "fresh" and herbal fragrances of the category, concepts aligned with the meanings of nature, natural, health, freshness and relationship with life, described by Heller (2000). The shade of green observed in the category was also more intense and yellowish than that found in the categories previously analyzed, changing the completely perception of this color.

4.2.5. Multipurpose

Although it presents a certain similarity in functionality and composition with the category of degreasers, the category of Multipurpose does not enter directly into specific calls for fat removal and focuses on diversified cleaning (which justifies its name for various uses/multi-uses).

In this category, 43 products were evaluated, of which 27 were packed in HDPE Plastic, six in PET Plastic, six in Unspecified Plastic, and four in metal (three in aluminum and two in steel); of these packages were 36 opaque and seven transparent.

For this category there are no specific requirements and/or limitations of the use of packaging materials and dyes.

The predominant color in the category of Multipurpose was the color blue, almost always associated with the most popular and fragrance-free appeal, using the odor of the main solvent historically used in this type of product, which has a characteristic odor associated with the category.

The presence of a multinational of great relevance to the sector can also contribute to the large number of blue products in the category.

The blue of the Multipurpose is more reddish and dark compared to the blue of the Softener of clothes, apparently related to the fragrance coming from the solvent of the product, which has aldehyde odor and combines with the color.

The use of blue in this product is related to the concepts of basic, classical, cold and distant, as described by Heller (2000) and according to the described by Farina et al. (2011) as an indication of sobriety, trust and depth.

The second most observed color was the green color, available in several shades that ranged from more popular greens (similar to that observed in the lower added value categories described above) to herbagreens, such as those of the noblest deantizers, also associated with food and/or vegetable raw materials, such as lime, green apple, among others.

The third most observed color was the lilac color, associated in most products found in the lavender variant.

Although in the color studies no meanings were found relating the lilac color to the functionality of this category, it was noticed that "Lavender" is an appeal widely used in the category, being the color always related to the fragrance following the same route, which brings a feeling of comfort, calm and cleanliness to the home.

4.2.6. Disinfectant

The disinfectant category proved to be very diverse in colors and because it predominantly presented the use of transparent packaging, which made it possible to see clearly the color of the product itself, which mostly stood out to the colors of the elements present on the labels.

We evaluated 120 products, where the predominant type of material found in the packaging was PET Plastic with 74 occurrences, followed by 37 in HDPE Plastic, six in Unspecified Plastic and three in Metal/Steel. Of these packages, 90 were transparent and 30 opaque.

The variety of colors was directly linked to the variety of fragrances found in this category.

For this category there are no specific requirements and/or limitations of the use of dyes and packaging materials, where the varied use of colors is perceived. The first color most observed in the disinfectant category was green. As in the category of degreaseers, the green of this category refers to nature, "clear" and fresh leaves, adding value to the product and combining with the fragrances "fresh" and herbal. The shade of green observed in the category was mostly more intense and yellowish than that found in the categories previously analyzed, although more bluish tones were also found (but because they are the color of the liquid product, they present higher intensity than the products that used similar tint in the opaque packages analyzed in the previous categories).

The second most found color was white color, being found both in products whose packaging were of this color, as products whose liquids were white.

Regardless of the color source, the white of the category is very associated with the concept of clean and sterilized, as described earlier in the categories of Bleach and Bleach. The use of this color in the category is then aligned with the concept of whiteness and cleaning offered by the product, which makes surfaces disinfected and free of microorganisms.

Some of the products in this category had the appeal of 'chlorinated', in which the use of dyes is hampered by technical reasons and in this case, the use of opaque packaging is justified. For the products whose liquid was white, the most common appeal was eucalyptus, whose odor matches the freshness provided by the white color.

The third color found was the blue color, with the fragrances referring to lavender, talc and marine and with colors ranging from the most intense and reddish to the less intense and opaque. The difference in tonality and the presence/absence of opacifier (product that confers opaque white background) alter the color perception. While the products that used light and opacifying shades referred more to softity, being with what Heller (2000) describes as the color of sympathy and harmony (being often present in the Talco variant, which refers to the appeal) the darker and more transparent tones are associated with what Farina et al. (2011) describes it as an indication of sobriety, trust and depth (and much seen in marine variants, associating with the mystery and depth of the sea).

4.2.7. Dishwasher

The dishwasher category is known as one of the lowest aggregate cost categories in the sanitarian sanitarian sanitarians sector and this low cost apparently severely impacts the lack of variety in packaging types, which mostly follow the same standards. Exceptions are the products for dishwashers, which allowed some differentiation in the type of packaging found in this analysis and are intended for differentiated uses.

We evaluated 63 products, of which 43 were in PET plastic, eight in HDPE Plastic, nine in Unspecified Plastic, two in PP Plastic and one in Metallized Film. 49 packages were transparent and 14 opaque.

In this category were found many products in yellow color, following the pattern of a famous brand of national presence. For the colors named "Pink/Red", the predominance was in red (referring to the Apple variant).

For this category there are no specific requirements and/or limitations of the use of dyes and packaging materials. The first color most observed in the category of Dishwasher was yellow, being the only category where this color has high relevance in the sanitante market.

According to the meanings described by Heller (2000), yellow is a cheerful, glitzy and garish color.

Its use in this category is usually not accompanied by any fragrance, being used in manual neutral detergents, so the color can be directly related to the brightness it provides in the gondola, drawing attention to the product, because according to Farina et al. (2011) the yellow color is used when the intention is to see a certain object.

The second most present color in the category was the blue color, although this is mostly present in dishwasher products. The blue of the dishwashers are usually accompanied by white color, in prints and figures that refer to the highlighted brightness. The use of these colors is associated with the concept of coldness, described by Heller (2000), also associating with the high cleaning that will be done in machines.

The third presentation in the category of dishwasher is not exactly a color, but rather the absence of it, being represented by the products "clear", or without color. This absence of color, always associated with the absence of smell, refers to cleaner products that will not leave smell on the dishes. It is also a product associated with those seeking products with "less chemistry" and softer, as they usually use the appeal of "glycerin" in their compositions.

4.2.8. Washing clothes powder

Just like the dishwasher category, washing powder also has low added value.

Due to the shape of the product and its low value, the packaging does not have high differentiation in format and material.

Even if historically according to Mestriner (2007), it was observed punctually on the market a package with a transparent plastic "visor" in which it was possible to see the powder (and its respective color) inside the packaging, the current/found packaging in the research does not allow the visualization of the product, being all the analyses of this category referring to the colors of the packaging. For this category, all 35 packages found were opaque, 12 in Unspecified Plastic, ten in LDPE Plastic, eight in Wrinkled Brown Kraft Cardboard, three in Wrinkled White Cardboard and two in Wavy Two Sides.

For this category there are no specific requirements and/or limitations of the use of dyes and packaging materials, but a clear preference for the blue color is perceived.

The color most observed in the category of Washing powder was blue. As in automatic dishwashers, there is in the washing powder the association of the blue color with the white color, which refers to the highlighted brightness. The use of these colors is also associated with the concept of coldness, described by Heller (2000), associating with the cleaning provided by the product.

Historically, blue in washing products is also related to the concept of whiteness in fabrics, as it was common in the past to use Anil in white clothes to tint the yellowish color of older fabrics, leaving them looking whiter. So the blue of the clothes washes is associated with this ancient concept.

The second most observed color was green. As observed in some of the previous categories, the green washing powder refers to nature, "clear" and fresh leaves, associated with the cleanliness and freshness that the product provides.

The third most observed color was the junction "Pink/Red", although in this category it was possible to differentiate both colors well.

For the pink color, it is perceived the association with special floral fragrances, being the color directly linked to the odorous appeal, relating to the meaning of sweet and delicate described by Heller (2000).

The color red (here always associated with blue and white in a large global brand), is close to the meaning associated with the pride described by Heller (2000), being also associated with happiness. According to Farina et al. (2011) red also has a connotation that refers to fraternity and welcoming, and this meaning is according to products that use photos of children in their communications, very present in the category.

4.2.9. Washes liquid clothes

Unlike their powder version, liquid washing sands have higher added value and diversify more in packaging and promotions.

Historically the liquid format of washing clothes is newer on the market compared to the powder version, justifying the largest number of products and launches in the period as the product becomes more popular and known to consumers.

The ease of production of this item compared to the powder version, can also be a contributing factor to the entry of more companies in this category.

In this category, 98 products were evaluated, of which 51 were in transparent packaging and 47 in opaque packaging. As far as materials are concerned, 41 were in HDPE Plastic. 34 in PET Plastic, 22 in Unspecified Plastic and one in PE Plastic.

For this category there are no specific requirements and/or limitations of the use of dyes and packaging materials, but the preference for blue and white colors is perceived.

The most present color in the category of liquid washing was blue. Just as we wash clothes powder, the use of this color is associated with the concept of coldness, described by Heller (2000), associating with the cleaning provided by the product, taking into account the history of the use of indigo, which tints the yellowish of clothes.

In the same way as in the previous category, not necessarily the blue of the clothes washes will in fact make the clothes whiter (because this depends on specific technologies and not only a blue dye), but many products of the segment use this appeal and indirectly, this association can also be made by the consumer.

The second most observed color in the category of liquid washing clothes was white. Although the washing of clothes has a different function from the softeners, the concept of color remains in the same line of meaning, referring to purity, softness, peace, innocence and less aggressiveness, described as some of the meanings by Heller (2000) and Farina et al. (2011).

In this color, there were more occurrences of baby products and the almost unanimous appeal of "coconut", passing the image of a softer and more natural product.

The third most present color was the green color. The presence of a well-known multinational in this segment with an item of this color may have contributed to the success of the use of green in the category.

The green of the clothes washes is a bluish and intense green. Among its meanings in the application are functionality, natural and freshness, described by Heller (2000), similar to the meanings discussed in some previous categories.

4.3. Analysis of the colors employed in the sanitary market

Starting to analyze the presence of colors, disregarding regional characteristics and affinities for types of products, it was verified the highest representativeness of the blue color in cleaning products, followed respectively by the colors white, green, pink/red, lilac, yellow, orange, pine, without color, black and finally silver, as can be seen in Figure 2.

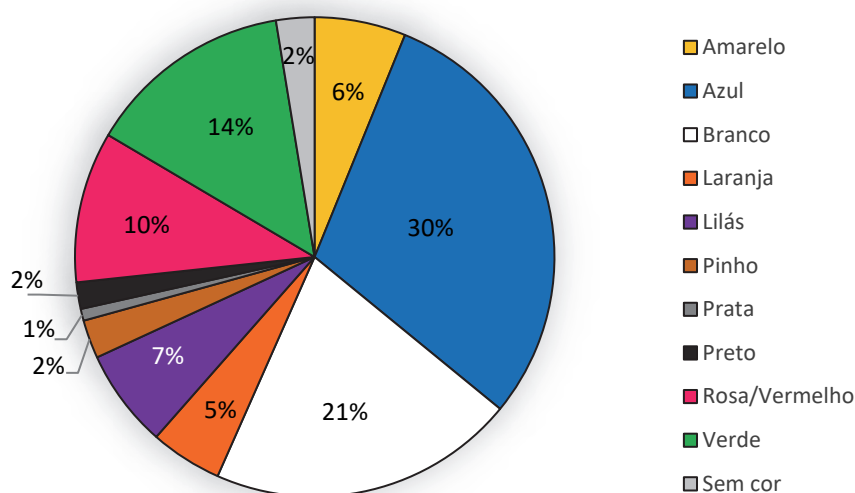


Figure 2. Colors in the sanitantes
Source: Original search results

The figure above shows that the use of colors in the sanitary market is varied and complex, with several associations between colors and possible meanings and sanitising effects, and decision involves detailed analysis and based on studies to support recommendations of choices.

5. Conclusion

After analysis of the market products, it was concluded that in general there is a predominance of the blue color in the cleaning products (representing 30% of the products analyzed in the period), which is elected the "color of cleaning" in the present study. In the case of packaging materials, HDPE Plastic represented more than 45% of the use in the category and 44% of the packages were transparent, and then almost half of the products represented by the colors of the formulations. Based on the analyses performed, it was also concluded that although some colors are more common and present (such as blue, white and green) the same color can present several meanings (even opposite meanings) depending on the specific product/category in which it is applied, so the deep and detailed knowledge of each color, its tonality and intensity, as well as its use in a given category is extremely important in positioning and delivering the correct message so that the product is perceived and accepted by the consumer. The analysis of the perception, differentiation and choice of the consumer according to shades and intensities within the same color is suggested as a future study with the use of samples and structured questionnaire, in order to verify the most appreciated exact colors and their respective associations.

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