The effectiveness of Canned Coffee packaging's graphic design elements in consumers' decision-making process

ABSTRACT

Studies recently focused on the important roles of graphic design elements in drawing consumers' attention. The present study focuses on finding out the effectiveness of graphic design elements and colors of canned coffee packaging in consumers' decision-making process. This study was performed in two stages. The first stage included making graphic design elements: image, shape, and typography. In the second stage, the values were modified to see which color was the most attractive to the consumer by distributing questionnaires to 135 respondents. The study demonstrates the importance of packaging visuals, implying the need for attractive graphic design elements. Regarding the image, respondents preferred the photograph over the illustration. Meanwhile, regarding shape, respondents preferred fluid rather than pattern, and regarding typography, they preferred display over text. To conclude, respondents preferred light-colored photography, pattern and display. This result could be used as a reference in designing beverage packaging.

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Introduction

A marketing department needs to understand consumer logic in the impulsive buying decision of a product in order to improve its sales. Recent studies show that packaging product serves as an opportunity to communicate products to consumers in-store (Rettie & Brewer, 2000; Silayoi & Speece, 2007; Simms & Trott, 2010). Facts show that 70% of purchasing decisions are made in store, even in a planned purchase. (Inman, Winer & Ferraro, 2009). Thus, a product marketing strategy may heavily depend on its packaging, one of the most important elements affecting consumers' decision-making process (Hall, Binney & Barry O'Mahony, 2004).

Consumers interact with the product at the point of purchase (Kauppinen-Räisänen & Luomala, 2010; Madzharov & Block, 2010), and their perception of the product plays an important role before making a final purchasing decision. (Ampuero & Vila, 2006). Hence, failure in marketing the product will likely bring a negative impact to the product, despite its high value (Ahmad & Ahmad, 2015). Packaging is known to play pivotal role at the point of purchase. Thus, it is pivotal to scrutinize how packaging affects one's purchasing decision (Deng & Kahn, 2009) in order to avoid losing the competition (Ahmed, Ahmed & Salman, 2005).

According to Ampuero & Vila (2006), a product image is divided into two elements, graphic and structural elements. The former consists of branding, illustration, typography, color, graphic, and information layout. Meanwhile, the latter comprises materials, form, size, and format. The present study focuses on graphic design elements, including image, shape, typography, and color. Previous studies have explored the importance of graphic design elements and color (Grossman & Wisenbilt, 1999) in creating a hedonic and sensory expectation that may influence the actual product experience (de Sousa, Carvalho & Pereira, 2020) and play important roles in building consumers' perception (Wang, 2013) and affect their decision-making process (Silayoi & Speece, 2007).

High-class consumers' products are often related to a photograph of the product itself, while products for costumers from price-sensitive groups are associated with illustration (Ampuero & Vila, 2006). According to Wu & Xu (2018), packaging does not only display the product specifically but also triggers emotion and creates intuitive visual effects for consumers. Picture implementation should represent the product name, brand, and product illustration and draw consumers' emotional interest. Furthermore, it is recommended to use photography rather than illustration in designing a packaging product. However, the combination of these two elements, or even the absence of both elements, in packaging may also serve as an effective choice in designing packaging (Pensasitorn, 2015).

Typography consists of two types: types of text designed to be read in extended passages and small size and those covering various types of font (Bigelow, Dyson & Lonsdale, 2017). Typography of packaging product for higher-class consumer segments usually use bold, roman typography and use capital letter to give an elegant impression, while the products for lower consumer segments usually use serif and sanserif typography (Ampuero & Vila, 2006). The important difference in typography lies in font and display. According to Childers & Jass (2002), fonts used in product packaging may act as a feature to give casual or luxurious impressions. A font could also affect hedonic perception and behaviors. It does not only function to communicate written information but also as a product of hope and association, which will affect its acceptance (de Sousa, Carvalho & Pereira, 2020).

Packaging color is also discussed from different perspectives in literature. It shapes consumers' first impression in their first purchase, affects their perception and emotion, and improves the packaging's visual aesthetics to attract consumers' attention (Kuo, Chang & Lai, 2021). It also differentiates a product from others (Garber, Burke & Jones, 2000) and help consumers choose the product taste (Piqueras-Fiszman, Velasco & Spence, 2012). Color affects consumers differently, depending on their ages (Marshall, Stuart & Bell, 2006; VanHurley, 2007). High-class consumer segments tend to prefer cool and dark packaging, whereas lower consumer classes are reported to prefer lighter or colorful packaging (Ampuero & Vila, 2006). Packaging visuals act as a pivotal marketing strategy in achieving high sales, which could be attained by considering elements of graphic designs, i.e., image, shape, typography, and color. Grounded from the description above, it is important to scrutinize the factors affecting consumers' perception when deciding to make a purchase and explore the packaging to provide a guideline in developing design and communication strategies.

A mind map was made to develop the canned coffee packaging (Figure 1). The mind map functions to devel-

op the creativity in a problem solving-process prior to its implementation in the visual image (Chen, 2008).
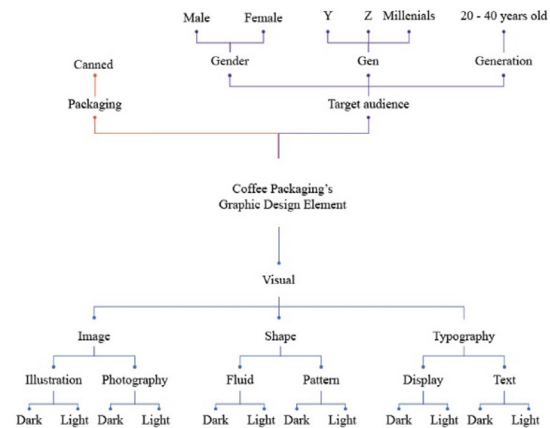
» **Figure 1:** *The mind map of canned coffee packaging graphic design development*

The mind mapping result is then transformed into mood board (figure 2) to turn abstract ideas into concrete ones, which is used as a reference to build the canned coffee packaging design.
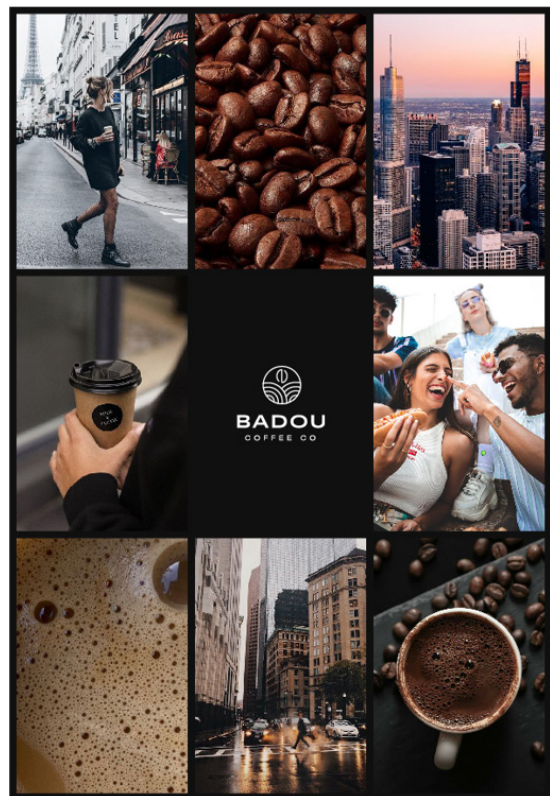
» **Figure 2:** *Canned Coffee Packaging Mood Board*

The target audiences were men and women of Y, Z, and Millennial generations between 20-40 years of age (productive age). Therefore, the mood board was intended to build a young, exclusive product images.

Making a canned coffee packaging design conceptually involved two stages: sketch and visual design. The sketch functions to develop a mind map before turning it into visual designs. The first sketch of the first element (image) (see figure 3-A) presents a picture of a glass of coffee with a splash effect and coffee beans falling into the glass. This packaging design aims to present a casual, calm, and mature impression through this photograph. The second sketch (see figure 3-B) presents an illustration aiming to deliver a warm, elegant and classic product impression by displaying coffee bean, coffee flower, and unroasted coffee bean.

» **Figure 3:** *Photograph (A) and Illustration (B) Image Sketches*

The pattern shape sketch (Figure 4-A) presents a repeated abstract shape to deliver a playful and modern impression.
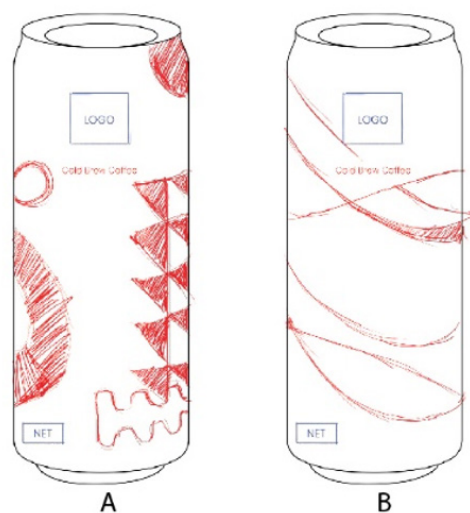
» **Figure 4:** *Pattern (A) and Fluid (B) Shape Sketches*

Meanwhile, the fluid design (figure 4-B) represents an idea obtained from water splash. It provides the product

with an elegant, modern, and mature impression. The display typography sketch (figure 5-A) presented a combination of typographies, including coffee beans and water splash with free, irregular styles. This sketch showed youthful, fun, and vintage senses. In contrast, the text typography sketch (figure 5-B) presents a more structured typography showing clean, bold, simple impressions.

» **Figure 5:** *Display (A) and Text (B) Typography Sketches*

The canned coffee packaging design is made following the sketch before being digitally applied. The values of the three graphic design elements (image, shape, and typography) were manipulated in order to create the final visuals of the canned coffee packaging design.

Figure 6: Image Visual Design (Photograph and illustration)

» **Figure 7:** *Shape Visual Design (Pattern and Fluid)*

» **Figure 8:** *Typography Visual Design (Display and Text)*

Problem Statement

Product packaging serves as the main promoter in communicating a brand. Its physical attribute is a means to achieve success through first impressions (Cortina-Mercado, Del Este & Rico, 2017) and an important factor in winning the competition in store racks (Bloch, 1995). Packaging also serves as a communication medium for consumers, as it allows them to gain product knowledge and eventually enhance the brand effects through graphic design elements (Wu & Xu, 2018).

Therefore, the present study aims to determine the most attractive graphic design elements in canned coffee packaging. This study hypothesizes that study respondents prefer a photograph in a can packaging. It is also expected that respondents prefer fluid shapes on can packaging. The third hypothesis in this study was that respondents preferred text typography. Lastly, this study expects that respondents prefer all graphic design elements in canned coffee packaging manipulated with bright color rather than dark color.

Method

Respondents

This study involved 135 respondents (female respondents 60%, male respondents 40%) between 20 and 40 years of age. They were asked to respond to the questionnaire to measure the effectiveness of the packaging design from consumers' taste perspectives.

Samples

Samples in this study were ready-to-drink canned coffee products commonly consumed and found in all supermarket. In order to avoid using certain brand, a fictitious coffee brand was made. The packaging and mockups were made using Adobe Illustrator and Adobe Photoshop CS6. The created design is saved in JPG. An adjustment of RGB color was made to ensure accurate color representation in computer or phone screen.

In the first stage of the study, six packaging samples were compared related to their graphic design elements, consisting of image (Figure 9), shape (Figure 10), and typography (Figure 11). In general, samples were designed using same product size and information with black and brown background to create an equal design.

Regarding the first element, i.e., image, brown appeared as the dominant color on can packaging with photographic visuals, while black with white gradation at the can bottom was dominant in packaging with illustrative visuals. Regarding the shape,

both fluid and pattern shape was colored black as its base color. Whereas the typography, both packaging types used black and brown as the base color.

» **Figure 9:** *Image (Photograph vs Illustration)*

» **Figure 10:** *Shape (Pattern vs Fluid)*

» **Figure 11:** *Typography (Display vs Text)*

In the second stage, twelve packaging samples were used by manipulating the value of the image (Figure 12), shape (Figure 13), and typography (Figure 14).

Respondents were requested to select the values of their preferred graphic design elements following their answers in the first stage.

» **Figure 12:** *Value of image 1) Bright Photograph; 2) Dark Photograph;3) Bright Illustration; 4) Dark Illustration*

» **Figure 13:** *Value of shape 1) Bright pattern; 2) Dark pattern; 3) Bright fluid; 4) Dark fluid*

» **Figure 14:** *Value of typography: 1) Bright display; 2) Dark display; 3) Bright text; 4) Dark text*

Results

This study used a general question, " Do you pay attention to the packaging visuals when buying a product?" to determine the importance of graphic design elements of packaging. In this regard, 98.5% of respondents answered "Yes", and 1.5% answered "No." The next question reads, " Do you think the visual display of a packaging important?", and 96.3% of

respondents answered "Yes," while 3.7% of respondents answered "No". Respondents in this study (n=135) were requested to show, using a scale of 1-5, how important a visual design is for them. 37% of respondents stated that it is highly important, 29.6% stated that it is important, and 33.3% stated fairly important.

In the first stage, respondents were asked to select their favourite canned coffee packaging design. In this regard, most of them (62.2%) preferred photography, while 37.8% preferred illustration (Figure 15).
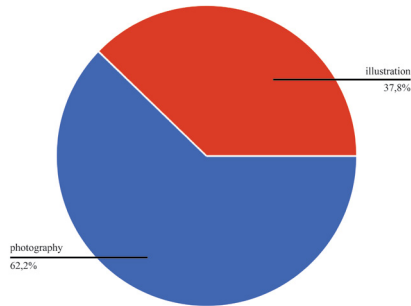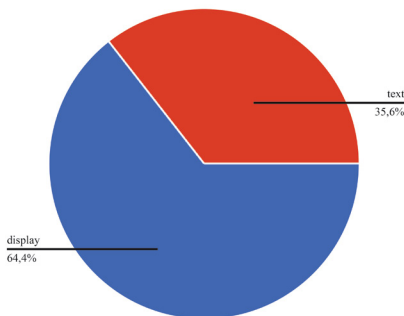

» **Figure 15:** *Respondents' preference regarding the Image (Photograph vs. illustration).*

Regarding shape, most respondents (63.7%) preferred fluid, while 36.3% preferred pattern (Figure 16).
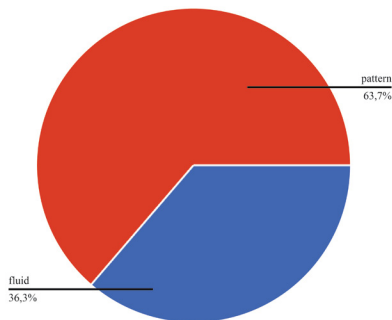

» **Figure 16:** *Respondents' preference regarding the shape (pattern vs. fluid).*

They also preferred display typography (64.4%) , over text typography (35.6%) (Figure 17).


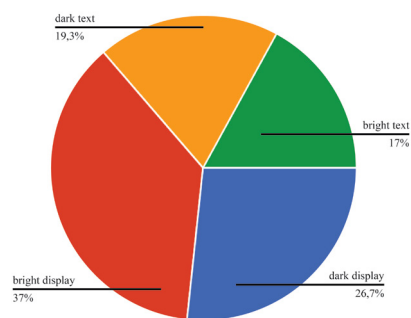» **Figure 17:** *Respondents' preference regarding the typography (display vs.text).*

The second stage of the study showed that most respondents prefer brighter graphic design elements. 43% of respondents were found to prefer a bright photograph for the image element (Figure 18), 48.1% of respondents preferred bright fluid shape (Figure 19), and 37% of respondents preferred bright displays for the typography (Figure 20).
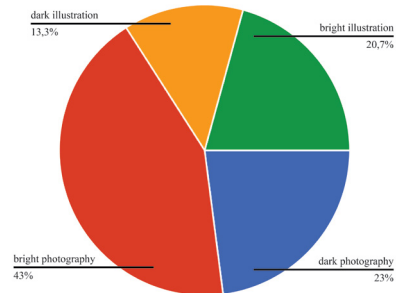
» **Figure 18:** *Respondents' preference of the image value (photograph vs. illustration).*
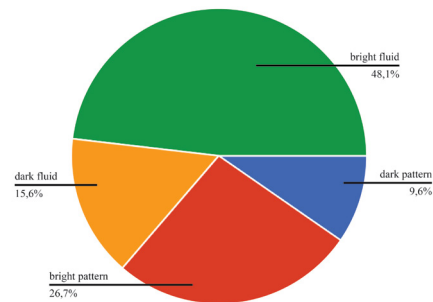
» **Figure 19:** *Respondents' preference of shape (pattern vs. fluid).*

» **Figure 20:** *Respondents' preference of typography (display vs.text).*

Discussion

Based on the study result, visual elements do significantly affect consumers' decision-making process. According

to Rettie & Brewer (2000), 70% of purchasing decisions are made when seeing the product, implying that graphic design is needed to deliver attractive packaging visuals. Regarding the element of image, photography was viewed as more attractive than illustration. This preference is possibly due to the fact that they have more product description through properly positioned, appetizing photograph. This is supported by Kovac et al. (2019), who state that photograph is more attractive and powerful to appetize consumers' impulsive purchase. In other words, the first hypothesis was accepted.

Regarding the element of shape, respondents prefer fluid shape rather than pattern, supporting the second hypothesis. Fluid shape is preferred as it presents more white spaces when appropriately designed. Furthermore, respondents prefer display typography over text, rejecting the third hypothesis. The use of display emphasizes the font beauty and exhibits larger visuals, thus making it more attractive and readable (Bigelow, Dyson & Lonsdale, 2017).

This study also combines respondents' interest in graphic design elements and the value of all graphic design elements, finding that respondents were more interested in brighter packaging with photograph, fluid, and display elements. Manipulating one or more graphic design elements, including colors, may positively affect consumers' attention and their preference. Packaging color could also communicate product information at the point of sales (Mohebbi, 2014).

Conclusions

This study concludes that a packaging's visual design significantly affects respondents' decision-making process. Hence, graphic design elements are important to create attractive packaging visuals for consumers. Photograph, fluid shape, and display typography could be used to make a packaging's visual design that may affect consumers' decision-making process. It should be noted that brighter colors are preferred over darker colors.

Photography could be applied if the product contains ingredients displayed on the packaging visuals. It is also recommended to apply fluid shapes with colors reflecting the product; for instance, using brown color on the canned coffee packaging represents the product itself. Moreover, the application of display as typography is also recommended while paying attention to its readability to allow consumers to recognize the product easier. These findings were obtained from respondents 20 to 40 years of age, a different finding possibly obtained when involving different age groups and products.

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