Student's Perception and Preference of Food Package Design: A Pilot Project

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Abstract

The food home industry in Bandung is increased by 7.19 percent in 2017. However, the lack of attractive packaging makes them not competitive in the market. A deep understanding of packaging and labeling is important. This research's objective is to contribute to the development of packaging design especially the food home industry products and also can be used as a reference for further research related to color perception, packaging design, and the creative industry. This study uses a qualitative and quantitative approach. Data collection is done through literature study, market observation, and questionnaires. This study is a pilot study for further research on the correlation between the perception of color combinations and consumer preferences. The results become the foundation for designing the Primary Display Panel of the banana chips home industry. From the study, it is suggested that the price that consumers perceive against the banana chips brands is the same as the actual price on the market.

Keywords: Banana chips, home industry, primary display panel, packaging, perception.

Abstrak

Industri rumah tangga makanan di Bandung meningkat 7,19 persen pada 2017. Namun, minimnya kemasan yang menarik membuat mereka tidak kompetitif di pasar. Pemahaman yang mendalam tentang pengemasan dan pelabelan itu penting. Tujuan penelitian ini adalah untuk memberikan kontribusi dalam pengembangan desain kemasan khususnya produk industri rumah tangga pangan dan juga dapat digunakan sebagai referensi untuk penelitian lebih lanjut terkait persepsi warna, desain kemasan, dan industri kreatif. Penelitian ini menggunakan pendekatan kualitatif dan kuantitatif. Pengumpulan data dilakukan melalui studi pustaka, observasi pasar dan kuesioner. Studi ini sebagai studi percontohan untuk penelitian selanjutnya tentang korelasi antara persepsi kombinasi warna dan preferensi konsumen. Hasil tersebut menjadi dasar dalam merancang Panel Display Primer home industri keripik pisang. Dari penelitian tersebut disarankan agar harga yang dipersepsikan konsumen terhadap merek keripik pisang tersebut sama dengan harga sebenarnya di pasaran.

Kata kunci: *Keripik pisang, home industri, panel display primer, kemasan, persepsi.*

Introduction

Along with the support of the Indonesian Government, Small Medium Enterprises (SMEs) from the creative industry are increasingly emerging. One of the sub-sectors of the creative industry that many cultivated by SMEs is the culinary industry (food and beverages). Food and beverage industry in Indonesia verified a growth of 7.19% in the second quarter of 2017 (Dinnata, 2017). This is an indicator that the food and beverages home industry has great potentials to be developed. Moreover, the Head of Industry and Trade Union Bandung, Bambang Budiraharjo (pikiran-rakyat.com, 2012), said that 60% of 7,500 SMEs in Bandung district are food industry. Nevertheless, he said there are still some obstacles faced by the owners of Small and Medium Industry, some of them are capital, low productivity and marketing. In the field of marketing itself, SMEs are experiencing branding, logo and packaging problems (Swasty, 2015).

On the other hand, a good packaging design can also be a mean of communicating product content and product quality visually. This is also confirmed in some previous studies. Packaging is acknowledged as an effective marketing tool that can increase sales in retail places; triggering the purchase decision process (Mohebbi, 2014; Silayoi and Speece, 2007 in Mohebbi, 2014). Thus, a research on the packaging of SMEs products needs to be conducted. With the increasing number of products offered in the market, SMEs products is facing a fierce competition. Thus, a research on the packaging of SMEs in order to have competitive advantage is needed.

This research is limited to SMEs products, especially food home industry (P-IRT) which has entered the retail industry in Bandung area. Here are some definitions according to the Regulations of the Head of Drug and Food Control Ministry of the Republic of Indonesia Number Hk.03.1.23.04.12.2205 Year 2012 on Guidelines for the Food Home Industry Production Certification (Kepala Badan Pengawas Obat dan Makanan, 2012):

1. Food Home Industry is a food company that has a place of business in residence with manual food processing equipment to semi- automatic.
2. The P-IRT (food home industry) Number is a number that is an integral part of the Certificate of Food Production-Home Industry (SPP-IRT) and must be included on the food home industry label that meets the requirements of the SPP-IRT grant.

The food home industry products studied were taken from various brands that already have packaging that has been processed starting from the packaging with a simple design to the competitive design with national and even multinational company products. The banana chips product used as the object of this research is taken from several major retailers in Bandung that sells the food home industry banana chips i.e. Transmart, Lotte Mart, Yogya, Borma and Setiabudi Supermarket.

This research was focused on the colour of food home industry product packaging. Banana chips were selected as the object of this study because the colour of packaging was quite varied (after the survey to some retails in Bandung). Compared to cassava chips which dominated by red as the colour of the packaging, banana chips have more colour and varied of colour harmony.

The problem formulation of this research are as follow: (1) How is the consumer perception of home industry banana chips packaging? (2) What kind of Primary Display Panel of banana chips does the consumer like? This research's objective is to contribute to the development of packaging design especially food home industry products and also can be used as reference for further research related to colour perception, packaging design, and creative industry.

Methods

This research used qualitative and quantitative methods. Data collection were done in several stages. The first stage was the collection of secondary data. Secondary data was data that have been available before this research was done and the data was not intended specifically for this research. Secondary data collection was done through literature study in the form of book literature study and scientific journals and similar researches by finding source of library data/theory as the foundation of early theory in searching for research problem and what aspects to be measured/seen.

Second stage: primary data collection. To retrieve primary data, observations were made through market observation of existing packaging. This observation aimed to collect data related to the packaging design that becomes the object of research. Market survey was conducted to several supermarkets, looking for various food home industry products (P-IRT) in particular banana chips that had attractive packaging for youth people. Simple packaged food home industry products using clear plastic and labeled paper/ stickers were not included in the scope of this research object.

Another primary data collection was done by distributing questionnaires. Questionnaires were distributed online (via Google Doc). These questionnaires aimed to see the respondents' perception of the design of banana chips packaging on the market, especially related to the colour factor that affect the preferences and purchase intention of respondents. One of the variables asked was the demographic of monthly expenditure. The respondents of this questionnaire were undergraduate students aged 17-25 years, assuming that this segmentation group was youth people, early adopter, dare to try new things (odd), gen-Y, exposed to social media, fond of snacking and concern about design. These questionnaires were expected to answer the formulation of this initial research problem and as a basis for further research.

Results and Discussions

As mentioned earlier, the banana chips products used as the object of this research is taken from several major retailers in Bandung Area such as Transmart, Lotte Mart, Yogya, Borma and Setiabudi Supermarket. VSang can be found in Borma and Setiabudi Supermarket. ZANANA can be found in Yogya, Transmart, Setiabudi and Borma. SUSENO can be found in Transmart, ANEKA is in Lotte Mart, while BANGNANA is found in Borma and Setiabudi Supermarket.

In addition to documenting food home industry banana chips that have packaging according to the criteria, this study also notes the dominant flavours on the market, i.e. chocolate, green tea and cheese. Furthermore, the study classify the Primary Display Panel (PDP) of the research object packaging

which is according to graphic design layout. The layout of PDP of the research objects are as shown in Figure 2. From the study of PDP layout, it appears that most products put product titles on brands and images on the bottom of the PDP. The description of the taste is not dominant (some are put at the top, some at the bottom of the PDP).

Figure 1. Primary Display Panel of various banana chips products of Food Home Industry (Swasty dkk, 2018)

Figure 2. Primary Display Panel Layout of Food Home Industry Banana Chips Products (Swasty dkk, 2018)

From 171 respondents who participated, then 129 respondents are validated according to the criteria (undergraduate design students in Bandung and surrounding area). At the beginning of the questionnaire, there are personal information questions to show the questionnaire distribution and demographic data of respondents. Respondents who participated consisted of 77 women (60%) and 52 men (40%) with the average age of respondents was 20 years.
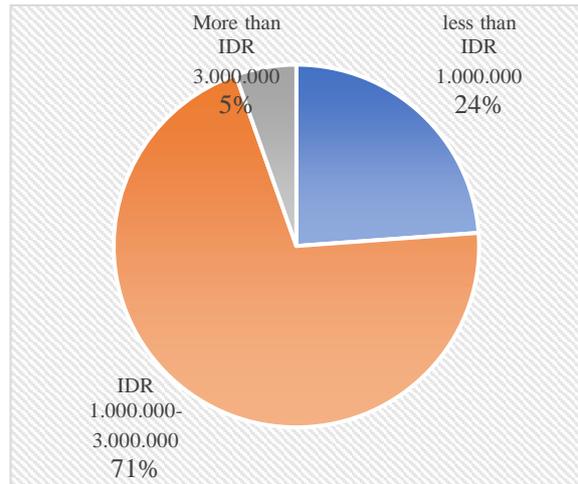

Figure 3. Respondent's expenditure per month (n 129) (Swasty dkk, 2018)

From figure 3 above, it can be seen that respondents who are undergraduate students are still dominated by Social Economic Status (SES) B with expenditure indicator per month between Rp 1,000,000 - Rp 3,000,000 according to AC Nielsen approach in 2012.

The second part of the questionnaire asked about how much banana chips and how often to buy them. The second part of the question aims to find the desired flavor (preference) of the youth people. Number 1 indicates very dislike and number 5 indicates very fond of banana chips. Similarly, number 1 shows never purchase banana chips and number 5 shows very often. From Figure 4, it can be seen that the preference for banana chips is not directly proportional to the frequency of purchase intention. This can be affected by monthly spending rate. When viewed from the respondents with expenses below Rp 1,000,000 per month, they stated to like banana chips (42%) but all respondents who like it rarely purchase of the product.
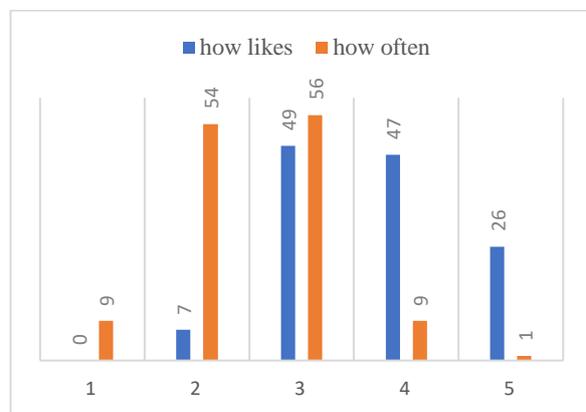

Figure 4. Level of preferences and frequency of purchase (n 129) (Swasty dkk, 2018)
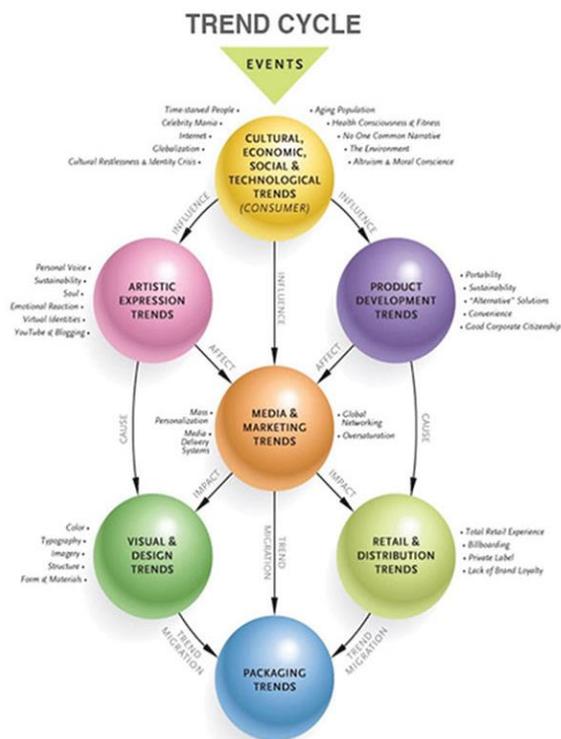
Figure 5. Packaging Trend Cycle (DuPuis & Silva, 2011, p. 56)

The third part is to know the initial perception of banana chips packaging design that consumers want, as a reference to develop prototype of packaging design as object of advanced research. The three variants of chocolate banana flavours which are the most preferred respondents are chocolate, vanilla/ milk and salty. Three variants of this flavour will be used as a reference to create prototype packaging in advanced research.

In the packaging trend cycle (Figure 5), according to DuPuis & Silva (2011), one aspect affecting packaging is the design and visual trends consisting of colour, typography, imagery, structure, form and material. These components are used as the basis for inquiring about what components are most interesting in packaging. The components in question are colour packaging, typography/product information, illustration/photos, the form of packaging and packaging materials. From the questionnaire, it revealed that there are three most important components in the packaging design according to the respondent (figure 6) that is the packaging form (36%), followed by the illustration/ photo on the packaging (34%) and the packaging colour (25%).

It also revealed that respondents mostly liked illustration drawing as imagery on banana chips packaging (68%) in addition to a combination of product photos and illustration drawing or just photos of banana or banana chips. However, 66% of respondents agreed that the content of the product

should be visible from the outside. The content of the product that can be seen from the outside can indeed persuade consumers to purchase the products and give confidence to the products they will buy, so that consumers do not feel cheated by the photo of the existing products on the packaging.
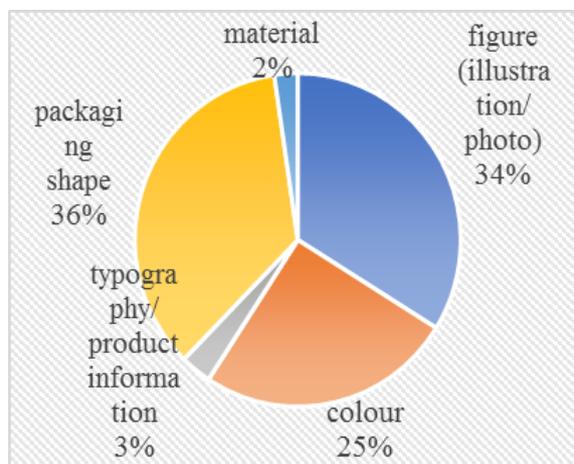

Figure 6. The most likeable illustration of banana chips packaging (n 129) *(Swasty dkk, 2018)*

Then from the six brands of food home industry banana chips as multiple case study, sorted prices ranging from the cheapest to the most expensive (per 100 gr) in table 1. Cap Lumba-lumba brand had the cheapest price while Bangnana had the most expensive price per 100 gr.

Table 1. The Comparison of Price per 100gr (Swasty dkk, 2018)

Brand	Selling Price	Netto	Price/ 100gr
Lumba-lumba	Rp 27.500	300 gr	Rp 9.166
Suseno	Rp 19.500	200 gr	Rp 9.750
Aneka	Rp 25.000	225 gr	Rp 11.111
Zanana	Rp 23.573	200 gr	Rp 11.786
Vsang	Rp 16.500	120 gr	Rp 13.750
Bangnana	Rp 21.200	150 gr	Rp 14.133

In addition, the respondent was also asked about the perception of price and quality, as well as preference and purchase intention about the packaging of food home industry banana chips in retail. Of the six brands of banana chips that are used as research objects (Bangnana, Vsang, Zanana, Cap Lumba-lumba, Aneka and Suseno); each brand displayed its packaging for the respondent to observe, then there are 5 questions in which respondents are asked to give an opinion on each packaging.

Respondents were asked about their perceptions of price and quality and opinions of product preferences (like or dislike the packaging design of the product) with the purchase intention. By looking at

PDP packaging of banana chips especially packaging colours, perception of price and quality can be mapped as seen in figure 7. Perceptions of respondents as consumers are only given a visual stimulus of PDP packaging. It is seen that Zanana brand is perceived with high price and high quality, while Cap Lumba-lumba on the contrary. As for Bangnana Chips perceived both price and quality is almost close to the brand Zanana. Apparently, what the respondents perceived is directly proportional to the actual price on the market (see table 1).
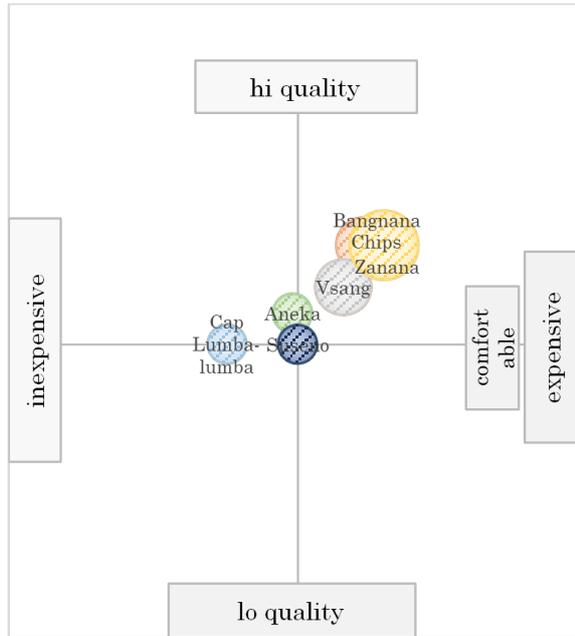

Figure 7. Perceptual map/brand positioning (n: 129) (Swasty dkk, 2018)
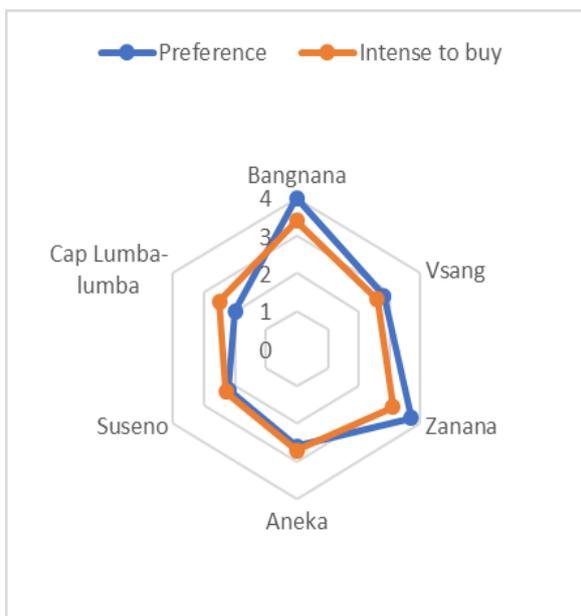
Figure 8. Product Preferences and Purchase intention (n129) (Swasty dkk, 2018)

Figure 8 shows the relationship between product preferences with purchase intention. The product preferences of Bangnana and Zanana are quite high but not aligned with its purchase intention, other-wise Cap Lumba-lumba product preference is very low but purchase intention is higher than its preference. Figure 8, it's suggested that product preferences are not always directly aligned with the purchase intention of the product.

The reasons for liking/ disliking the packaging design of each brand is summarized in table 2. From table 2, it is concluded that most respondents who are students like the packaging because the colour is attractive, simple, and modern. The respondents' comments about the reason for disliking the packaging are inferred because the boring, monotonous, overcrowded, colourless and illustration of packaging designs do not depict bananas. Thus, it can be concluded that to design the packaging, in addition to paying attention to design principles, designers and producers must know the target audience of the product and adjust both the colour and illustration according to the target audience.

Conclusion

From the study, it is suggested that the price that consumers perceived against the banana chips brands is the same as the actual price on the market. In this case, the producer has succeeded in positioning its brand ahead of its competitors by utilizing its product packaging. So that consumer perception about the price and also quality is directly aligned with the actual price. But some times, the packaging design for food home industry products are made as it is and seem old fashioned to be perceived cheap. This is of course to attract buyers especially if the target audience is from the middle to lower economy level.

It is concluded that illustrations and colours in this case can be assumed to be one of the most important elements in PDP packaging designs so it is important to examine the illustrations and colours in the packaging designs associated with perceptions and preferences. As far as the research has been done, the results obtained include: illustration and colour is one of the important visual stimuli in packaging design. Respondents liked the illustration as an illustration on the banana chips packaging. The contents of products that can be seen from the outside can indeed persuade consumers to buy products and give confidence about the products they will buy, so that consumers do not feel cheated by the photo of the existing products on the packaging. It can be concluded that the packaging should show the contents therein, but in order not to

Table 2. Reasons towards products preferences *(Swasty dkk, 2018)*

Brand	Liking reason	Disliking reason
Lumba-lumba	Traditional	Old school Less odern Plain active ke crackers
Suseno	N/A	Not interesting Boring Plain Looks cheap Panda illustration is not related
Aneka	Looks vintage & classic, Related to the local food Original Different kind of ingredients	Illustration is not interesting Boring colours
Zanana	Interesting colours, eye-catching, vivid, depicting banana, unique, different, simple	Monotonous, Too much air
Vsang	Premium and exclusive image	Too full, Looked formal, Monotonous, Too dark.
Bangnana	Interesting colours Up to date unique Fun modern	Overcrowded, Does not depict banana chips

appear crowded or clashing with the PDP design, then there should be a "window" on the packaging. This result will be a prototype design concept of banana chips packaging as a research object in advanced research on colour perception and consumer preferences.

Acknowledgement

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