



Food Packaging Rebranding Assistance for Vegetable Products of OkeFarm Neglasari Women Farmer Group

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Abstract: Packaging is one of the aspects that affecting the trust of consumers to a product. As a small enterprise, OkeFarm Neglasari Women Farmer had no packaging expert. The aim of this community service is to provide a good packaging to help them gaining new consumers. Community service was conducted by CBR (Community Based research). The community involved in packaging rebranding, developed by market analysis methods and adjusted to the financial ability of the community. The finalized designs were tested to packaging acceptance test by mean questioner methods. Rebranding resulted 30 new loyal consumers, 25 of them responded to the questioners. 76% of the new consumers were females and 24% of it were males. Most of the new consumers were at age range 31-35 years old (44%) and 26-30 years old (36%). The rebranding effective to attract consumers with income range 3.1-6 million IDR (40%), and 6.1-9 million IDR (24%). The new food packaging brand significantly increased the acceptance of vegetables products.

Introduction

OkeFarm Neglasari is a women farmer group assisted by Human Initiative and PT Paragon Technology and Innovation, producing organic vegetables cultivated on their unused area in their yard. The program has been guided by ICTS (Inovation Center for Tropical Science) in the vegetables production. They have been succeeded in producing fresh vegetables, but they still using simple packaging for their product. This leads to the uneven quality of the vegetables product and the trust of the consumers. Packaging is important element for the consumer buying behavior. The more information and the more attractive the design of the packaging will affect consumer final decision whether they will buy a product or not¹. Color, typography, and the design not only affecting purchasing decision of consumers, but also having ripple effect, an effect where consumer

¹ Sadique Hussain et al., "Impact of Product Packaging on Consumer Perception and Purchase Intention," *J. Mark. Consum. Res* 10, no. 2011 (2015): 1-10.

not just being loyal to the product, but will also promote others to buy the product²



Figure 1. Food Packaging of OkeFarm Neglasari Women Farmer Before Rebranding

Brand was defined as a set of attributes designed to create awareness and identity, and to build reputation of a product from a company. Brand is very important differentiate the product from its competitors, reducing the number of perceived substitutes in the marketplace, increasing price elasticity, and improving profits³. Packaging is very associated with branding. Rebranding of food packaging “Roti Kecil Ganep” from Surakarta shown that by better packaging, it will affect the popularity and marketing of the product⁴. Design, color, and information attached on packaging is very important in food packaging rebranding. Giving calm color, applying simpler design, and simplify the information proved increasing the acceptance of Fera’s Legit Food Product⁵. Labelling, packaging, and marketing are the easiest way of rebranding especially for Small and Medium Enterprise (SME). In Monjok, Selaparang, Mataram, West Nusa Tenggara, this method proven to set consumers to believe that there was increase of quality of the food product⁶. Rebranding can be done by changing the slogan, logo, name, color, and packaging⁷.

² Maria I S Dantas et al., “The Effect of Packaging on the Perception of Minimally Processed Products,” *Journal of International Food & Agribusiness Marketing* 16, no. 2 (2004): 71–83.

³ Tanya Sammut-Bonnici, “Brand and Branding,” 2014.

⁴ Dessy Octavia Widjaya, Elisabeth Christine Yuwono, and Bambang Mardiono, “Perancangan Redesain Kemasan Makanan Ringan Roti Kecil Merk Ganep’s Sebagai Buah Tangan Khas Kota Surakarta,” *Jurnal DKV Adiwarna* 1, no. 8 (2016): 9.

⁵ Anthony Halim, Elisabeth Christine Yuwono, and Bambang Mardiono, “Perancangan Re-Branding Produk Fera’s Legit” (Petra Christian University, 2016).

⁶ Mohammad Liwa Irrubai, “Strategi Labeling, Packaging Dan Marketing Produk Hasil Industri Rumah Tangga Di Kelurahan Monjok Kecamatan Selaparang Kota Mataram Nusa Tenggara Barat,” *Society* 6, no. 1 (2015): 15–30.

⁷ Basit Ali et al., “Investigating the Impact of Corporate Rebranding on Customer Satisfaction:

In rebranding, defining the right target for the market is the key for the success. Many factors affect the consumer target. In Europe, logo and labelling affected the acceptance of food product in market. Food product labelled with environmental friendly, healthy, and organic were preferred⁸. The packaging design also affecting the acceptance of food product. In Asia, aesthetic design was more prominent in capturing consumers. The symbolic design however, was more promising in terms of improving the spread and sharing possibility from mouth to mouth or in social media. The dimension of the product was not significantly affect the acceptance of food product⁹. The price of the product also become one of preeminent factors in acceptance of food product. Women proven to be more sensitive to price compared to men¹⁰. Beside price, the age also affecting the buying behavior Age of 25-34 were more consumptive compared to others¹¹. The choose of color will differ depend on the market segment. Pastel color were preferred in men, while women preferred brighter color. The acceptance of bright color of yellow, pink, to purple were very low in male consumers¹². Unfortunately, OkeFarm Neglasari still not having human resource compatible in analyzing these factors.

Vegetable products described as food products obtained from plants, consisted fresh part of plants which, either raw, cooked, canned or processed in some other way, provide suitable human nutrition. Consumption of Vegetable Products in Indonesia was very low. In 2017, the daily intake of fruit and vegetable products of Indonesian were less than 173 grams a day. Recommended daily intake of fruit and vegetable products was 400 grams a day¹³. However, the consumption of vegetable products predicted to increase in 2045. The consumption of vegetable products was high especially in satellite and urban areas, where swamp cabbage was the consumed vegetables in 2017. Fresh vegetables were popular in people with mid to high income. However, these market segments were very conscious in brand packaging of the food products¹⁴. That's why this

Empirical Evidence from the Beverage Industry," *International Journal of Advanced and Applied Sciences* 6, no. 4 (2019): 110–22.

⁸ L E Europe et al., *Behavioural Study on Consumers' Engagement in the Circular Economy* (Publications Office of the European Union, 2018).

⁹ Naeem Gul Gilal, Jing Zhang, and Faheem Gul Gilal, "Linking Product Design to Consumer Behavior: The Moderating Role of Consumption Experience," *Psychology Research and Behavior Management* 11 (2018): 169.

¹⁰ Kraljević Radojka and Zrinka Filipović, "Gender Differences and Consumer Behavior of Millennials," *Acta Economica Et Turistica* 3, no. 1 (2017): 5–13.

¹¹ Marie Slabá, "The Impact of the Age on the Customers Buying Behaviour and Attitude to Price," *Littera Scripta* 146 (2019).

¹² Valerie Bonnardel et al., "Gender Difference in Color Preference across Cultures: An Archetypal Pattern Modulated by a Female Cultural Stereotype," *Color Research & Application* 43, no. 2 (2018): 209–23.

¹³ R Boer, "Food Security Monitoring Bulletin INDONESIA," *Bogor: FAO Indonesia*, 2017.

¹⁴ Bustanul Arifin et al., "Modeling the Future of Indonesian Food Consumption," *Report Submitted to the National Development Planning Agency (Bappenas), World Food Programme (WFP), and Food and Agricultural Organization of the United Nations (FAO)*. Jakarta. <https://Docs.Wfp.Org/Api/Documents/WFP-0000073760/Download>, 2018.

community service was very important for the sustainability of OkeFarm Neglasari Products.

Method

The subject for this community service is OkeFarm Neglasari Women Farmer Group located in Neglasari Village, Dramaga, Bogor Residence, West Java. Neglasari is a vegetable producing village, well known for their yard field vegetable production. Unfortunately, the vegetables transaction still dominated by middlemen, so the price is very low. Community service was conducted Community Based Research (CBR). Community was involved directly to map their problems especially regarding packaging material and in formulating options to solve their problems. Steps of treatments that being done in this community service was written in table 1.

Table. 1 Steps of Intervention for Food Packaging Rebranding

No.	Steps	Methods	Results
1.	Product Survey	Direct Observation	Community aware about the advantage and disadvantage of their packaging and product condition
2.	Market Targeting	Bustanul Arifin (2108)	Together with team from Politeknik Negeri Media Kreatif, Community set the Market Map for their product
3.	Packaging Rebranding and Redesign	Literature Review	New Packaging Brand and Raw Design developed by Community assisted by Politeknik Negeri Media Kreatif's team
4.	Packaging Finalization	FGD	Final Design to penetrate Market Map designed by Community
5.	Packaging Acceptance Test	Questioners Method	Data of Consumers
6.	Statistical Analysist	SPSS	Data interpretation

Result

Product survey conducted on 12th December 2020. From the observation it was found that although the vegetables had been produced and managed properly, there still no standard in packaging. Packaging still conducted in whatever packaging material available in market. Identity attached with sticker that being stuck in plastic package and paper package. Since there was variety in packaging material, there was variety in

packaging material. It also affected the shelf life of the vegetable products.



Figure 2. Example of Vegetables Product that Been Harvested



Figure 3. Post-Harvest Management Neglasari's Vegetable Products

The post harvested management of the product was conducted under regular condition. However, certain procedures had been set, like washing hands and feet before touching the harvested product, and compulsory to wear masker. Some products were washed to remove the dirt and contaminants, but some product like tomatoes and chilies were freshly packed.



Figure 3. Variety of Packaging Condition in Neglasari Women Farmer Group

Bustanul Arifin (2018) modelling shown that fresh and healthy vegetable products should be marketed in consumers with middle and above income. Unfortunately based on data collected from Neglasari demography map, it shown that most of Neglasari residents were having middle to low income. 20.62% of the residents were unemployed, 21.65% still uneducated. The only area with promising marketing prospect were “Perumahan IPB”, and offices area along Dramaga Nasional Street.

Packaging trend in 2020 demand simplicity. Material wise, consumer demand more nature friendly material. However, protection is still prioritized among other factors¹⁵. Based on this result, we decided to use High Impact PET and PP (Polypropylenes) as the packaging material. We used latin typography and combination of green, white, and black color to represents nature, power, and purity.



Figure 4. New Packaging Brand and Design for Neglasari Women Farmer Group Vegetable Products

After design alternatives were drafted, Focus Group Discussion (FGD) was held on 12th December 2020. Since the pandemic Covid-19 was reaching its peak, FGD was held online by Zoom. The FGD attended by Team from Polimedia, representative of *Human Initiative* (HI), and representatives of Neglasari Women Farmer group. The factors that being discussed here was the design, and whether it suit the monetary condition of the Small and Medium Enterprise (SME) or not. Design wise, they were agreed with PET design, because it represent their ideality to stay strong with limited resources they had. The green color was also representing the product they produce that was vegetables. The addition wanted in this FGD is addition of *Human Initiative*'s symbol on the packaging. The producing price also found in the range of the ability of SME's budget. For the PET

¹⁵ Ziyne Boz, Virpi Korhonen, and Claire Koelsch Sand, “Consumer Considerations for the Implementation of Sustainable Packaging: A Review,” *Sustainability*, 2020, <https://doi.org/10.3390/su12062192>.

packaging, each packaging cost was Rp. 2500,- ; with minimal order 100 packaging. In total, Neglasari Women Farmer Group only need around Rp. 250000,- .



Figure 5. Final Packaging Design for PET Packaging

For the PP packaging design, the application of *doodle* was accepted. However, they want to apply the new Neglasari Farm logo that being applied on PET packaging to replace the “B” symbol in PP design. Besides that, “B” can be interpreted in many things, that’s why it’ was considered not represent any aspect from Neglasari Women Farmer group. This packaging also considered cheap because for each packaging, it only cost Rp. 750,-. The only problem was that minimum order for this packaging was 1000 pcs. In other word, in one packaging production batch it will cost Rp. 750000,-. The amount however worth the expenditure.



Figure 6. Final Packaging of Products

In packaging acceptance test, we only analyst data from new repeat buyer who fill the questioner properly before and after treatment. 30 respondents stated that they will be a loyal and repeat buyers, but only 25 fill the questioners properly. Results of acceptance test was shown as bellow.

Correspondent's sex profile

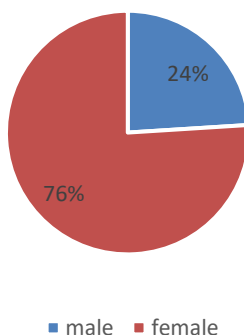


Figure 7. Sex Profile of Correspondents

Female were prominent as new costumers. From the data above we can see that 76% of the new repeat buyers were female, meanwhile only 24% of the new repeat buyers were male.

Age Profile of New Loyal Consumers

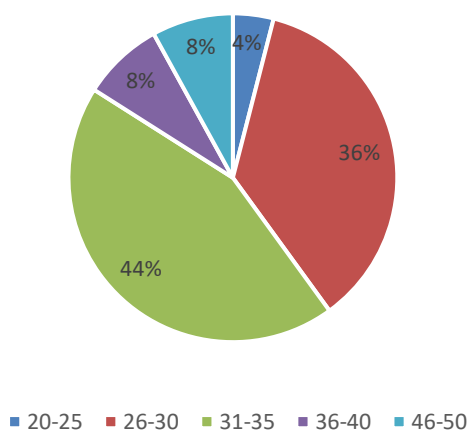


Figure 8. Age Profile of New Consumers

New consumers were dominated by people in age range 31-35 years old. 44% of new consumers came from this age range, while 36% were people with age range 26-30 years old. Consumers with age range 35-36 and 46-50 year old were 8 % respectively, while consumers with age range 20-25 years old only 4 %.

Income Range Profile of New Loyal Consumers

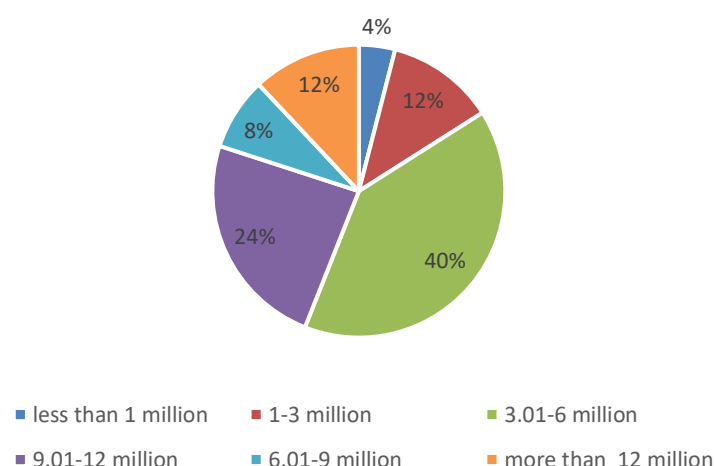


Figure 9. Income Range Profile of New Consumers

Most of new loyal consumers had income ranged from 3.01 till 6 million IDR. 40% of the new loyal consumers came from income range 3.01-6 million IDR. 24% came from income range 9.01-12 million IDR. Both consumers with income range more than 12 million and 1-3 million IDR made up 12% of new consumers respectively. 8% of the consumers had profile income range 6.01-9 million IDR, while only 4% of it had income range less than 1 million IDR.

Packaging acceptance test conducted using 5 scale reference method. The most negative result given 0 point while the most positive result scored 5. How the packaging attract the new consumers was shown in table 2.

Table. 2 Respondent's Reference for Attractiveness of Packaging

Respond	Score	Frequency		Percentage (%)	
		Before rebranding	After rebranding	Before rebranding	After rebranding
Very attractive	5	4	16	16	64
Attractive	4	8	9	32	36
Neutral	3	13	0	52	0
Unattractive	2	0	0	0	0
Very unattractive	1	0	0	0	0

Before packaging rebranding, only 16% of respondents consider that the packaging was very attractive, while 32% of it considered that the packaging attractive. Most of respondents gave neutral responds to the packaging (52%). After rebranding however,

the results change dramatically. 64% respondents thought that the packaging was very attractive, while 36% of it considered it attractive. The acceptance of the product increase.

To understand how much the packaging acceptance increase, we conduct T test statistical analysist to analyses packaging acceptance before and after rebranding. The result was shown in table 3.

Table 3. T Test Analysis Results

Treatment	Overall acceptability of packaging before treatment	Overall acceptability score after treatment	Mean	Std. Deviation
Rebranding of Packaging	3.64	4.64	4.14	0.115
CD at 5%	0.043*			

*Different significantly

Overall acceptability of packaging before rebranding was 3.64 (tent to neutral), while after rebranding overall acceptability score was 4.64 (tend to very attractive). The rebranding proven to increase the acceptability of the products significantly.

Discussion

International Finance Corporation of World Bank Group in 2016 reported that women Small and Medium Enterprises (SME) contributed to 9.1 % of Indonesian GDP. Women owned SME were 16% more profitable than man owned SME. Unfortunately, Loans, Distribution, and Savings still became biggest hurdle for Women Based SME. In term of distribution, women based SME need more assistant especially in packaging to ensure the quality of their products. Packaging is important to target a proper market and to penetrate middle and upper income society. For Food and vegetable product, simple, fresh, but providing a good protection were found will gave higher attraction for new consumers with middle to upper income¹⁶. Our final packaging design arranged with this concern so the final packaging brand used a visible packaging material to let the product sell itself. Icon added in shape of small doodles as a sweetener and emphasis was focused on the new products logo.

¹⁶ International Finance Corporation, "Women-Owned SMEs in Indonesia: A Golden Opportunity for Local Financial Institutions" (World Bank, 2016).

Women were less optimistic than men; they exhibit higher levels of risk-aversion; and they have higher cognitive-processing than men¹⁷. 76% of new consumers were women meant that new rebranding succeeds to fulfil all the high recruitment set by new women consumers. Although women harder to convinced in buying new products, once they put their trust on a product, they show more loyalty compared to men consumers¹⁸.

Purchasing power of fresh fruit and vegetables was high especially for students since they still need all the good benefit contained in fruit and vegetables for their growth. No wonder, most of consumers of fresh fruit and vegetables were young families, couple in age 30-35¹⁹. Parents with children from juvenile till teenagers had been targeted as market and promotion for fresh fruit and vegetables by FAO since 2015²⁰. That's why the new consumers after packaging dominated with consumers with age ranged 31-35 years old.

After rebranding, new consumers mostly come from people with age ranged 3.01-6 million IDR. Fresh fruits and vegetables were recommended by WHO. Unfortunately, only the upper 36% income of population of the world were available to fulfil the recommendation. Fresh fruits and vegetables recommended to be marketed to middle and above income range. In 2019, only 40 most developed countries fulfil the needs of daily intake recommendation for fruits and vegetables²¹.

The attraction of packaging affecting the market value. In Indonesia, branding and marketing were the main factor why junk food still popular especially in youth²². Packaging affecting satisfaction, image, loyalty of costumers²³. The increase of attraction of packaging before and after rebranding proven that the community service activity had been succeed to give it remarks to Neglasari Women Farmer Group.

¹⁷ Theuns G Kotze, O Anderson, and K Summerfield, "Technophobia: Gender Differences in the Adoption of High-Technology Consumer Products," *South African Journal of Business Management* 47, no. 1 (2016): 21-28.

¹⁸ Bachana MIKAI, "The Europeanization of Gender Equality beyond the EU: The Case of Georgia from 2012 to 2020," 2021.

¹⁹ Ajay Yashpal, "Rural Marketing" (Vidya Books, 2021).

²⁰ Thirty-fifth Session, "FAO REGIONAL CONFERENCE FOR ASIA AND THE PACIFIC," *Update*, 2020, 1.

²¹ Daniel Mason-D'Croz et al., "Gaps between Fruit and Vegetable Production, Demand, and Recommended Consumption at Global and National Levels: An Integrated Modelling Study," *The Lancet Planetary Health* 3, no. 7 (2019): e318-29.

²² Puteri Nur Amira Abdl Rahman, Rabitah Harun, and Nur Rashidi Johari, "The Effect Of Packaging Design Elements On Youth Purchase Intention Of Junk Food," *JBMP (Jurnal Bisnis, Manajemen Dan Perbankan)* 6, no. 1 (2020): 25-38.

²³ Ahmed Khaled El Gammudi, Ubud Salim, and Ananda Sabil, "The Effect of Packaging, Satisfaction and Image on Customer Loyalty of the El Rayhan Company," *The International Journal of Accounting and Business Society* 24, no. 1 (2017): 1-9.

Conclusion

The final packaging brand for Neglasari Women Farmer Group designed by applying simple and fresh concept. Material used was PET and PP to provide good protection to vegetables products. 76% of the new consumers were females and 24% of it were males. Most of the new consumers were at age range 31-35 years old (44%) and 26-30 years old (36%). The rebranding effective to attract consumers with income range 3.1-6 million IDR (40%), and 6.1-9 million IDR (24%). The new food packaging brand significantly increased the acceptance of vegetables products.

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