# Consumer Image on the Package of Fruit Leather-tropical Fruit Base Product 

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#### Abstract

There is plenty of production of tropical fruits in Indonesia, especially in certain harvesting season. Giving value added on these fruits can be provided through processing activities in order to make changes on products, and one of the alternatives is by creating the fruit leather. This product is categorized as a new product in the society. One of the efforts is by attracting consumer interest and affecting impulsive purchasing decision through the package. The research aimed at identifying consumer image on the packaging elements of fruit leather. There were 30 respondents taken by using accidental sampling at the central shopping mall of Carrefour Surabaya. The data was processed descriptively by using a table and graph. The research result showed that most of the consumers felt impressed with the fruit leather green package, bright color shade, medium size, made of mica, and tube shape. In addition, based on consumer image, fruit leather package is categorized as informative, easy to carry, and easy to open or close.


## 1 INTRODUCTION

Indonesia is known as one of the highest tropical fruit producer in the world. There are many tropical fruits produced in Indonesia such as jackfruit, mango, sapodilla, Java plum, sugar apple, sour soup, banana, mangosteen, durian, cempedak, etc. Statistical Board (2017) mentioned that in 2015, tropical fruit in Indonesia reached 19.393.364 ton that further decrease by 364.283 ton or equal to 16.72 percent in 2016. This huge decrease is related to classical problem of producer in terms of downward yields trend, low price during harvesting season and perishable product characteristic. In the other hand, fruit demand keep existing all the time with significant increase. One of solution could be offered is by utilizing technology of processing in order to enhance both value added and fruit supply in the market, and one of the technologies is fruit processing into fruit leather.

Fruit leather is one of product that easy consumed, practical, easy to carry, relatively low price, less sweet taste, and healthy (Abate and Christopher 2016). According to FAO (2016), fruit leather is one of fruit processing product in the form of sheet with sweet taste, soft, gummy texture, water content ranged between 15 up to $25 \%$ and storage capacity is up to 9 months (FAO 2016). Type of fruits oftentimes used for fruit leather material is
those with high pectin content and strong aroma. Different from other processing fruits that widely known by people such as syrup, juice, sticky taffy (dodol) and chips, fruit leather is less known by people in Indonesia. This is because there are still less producer and limited marketing channel by online.

Fruit leather product is categorized as new comer in processing food market. In related to this, it is important to determine marketing strategy in producer level that matched to the product characteristic so that it will be easy accept by the market or known as commercialization. Based on Jalili et.al (2011), commercialization process has several definitions but the simplest one can be defined as the effort of introducing new product to the market or series of activities aimed to deliver knowledge about product being produced. One of strategy to be used is by putting on interesting packaging.

In a competitive circumstances business, packaging has become important role in stimulating impulsive purchasing behavior, increasing market share and decreasing advertisement cost. Pilditch (1973) stated that packaging has been considered as quiet seller that can affect consumer decision in buying the product. Next, Borishade et.al (2015)
mentioned that packaging is needed media to deliver the product into ultimate consumer that can be categorized as art to protect product during distribution, storage and trade. According to Grundey (2010), packaging could protect the product from any destructive element such as light, dust, oil, temperature, mechanical problem, water and humidity and also biological damage. Therefore, it is not only as protector but also other important use as benefit.

Klein and Burke (2001); Klimchuk and Krasovec, (2007) explained that packaging can have the function as a strategic element in showing brand, identity, and difference with other products. This also can communicate image and identity of the company in the positioning of the product, creating consumer perception and impacting the purchasing decision (Sajuyigbe, et. al., 2013). Other benefits of packaging also discussed by Ampuero and Natalia (2006), that this can affect the product purchasing before consumer choose a brand because it displays advertisement language with various forms. In addition, packaging design with pictures will add product benefit on an unknown product that this may affect young age consumer which usually like new things and make the trial.

Packaging has an important role in purchasing decision. Therefore, it should be designed by considering elements of packaging. There are three basic elements namely form, color, and graphic. Basically, composer variables on package consist of two dimension namely constructive dimension that involves graphic design, brand name, color, typography, and image dimension that consists of structure design, form, size, material and product information (Ampuero and Natalia, 2006; and Klimchuk and Krasovec, 2007). Importance of packaging design is also stated by Silayoi and Speece (2004), that the main element in packaging is a factor affecting consumer judgment and create consumer image on the package.

Kotler and Amstrong (2008) stated that image is impression gained by the consumer from an object. Strong consumer image on products gives several benefits for producers such as establishing difference with other products, creating consumer loyalty and opening the opportunity for development. As a new product, it is important for fruit leather to know about the image of a product to be used by the producer in creating policies for product packaging. The research aimed to know consumer image on elements of fruit leather packaging.

## 2 METHODS

The research was held at Supermarkets Supermarket Carefour Surabaya. It is purposively determined by consideration of fruit leather product that segmented for consumers with over average income standard (UMR) who usually buys daily needs products at the supermarket. Since the population is not known, then based on Gunawan et al., (1996) if there is the unknown population in the research, then sample determination may use non probability sampling. The method being used was accidental sampling, in which the respondents were consumer met by a researcher who experienced in consuming fruit leather. There were 30 respondents.

Data being used was primary data that taken by questionnaire distribution and close question. The consumer was asked to judge the fruit leather package exist in the market. Primary data consists of:

1) Visual component consists of color, color shade, size, material, design, and shape.
2) Package features component consists of easiness in carrying and open/close
3) The verbal component consists of product name, brand, producer, halal certification, nutrition, License of health guaranty (BPOM) and production date.
Data were analyzed by the descriptive method through graph and percentage. The main purpose of the descriptive method was learning aspects of what, how, who and when (Donald, 1996).

## 3 RESULT AND DISCUSSION

Package creation should consider several factors to attract consumers in affecting a purchasing decision. There are: (1) safety factor in which package should be able to protect the product from ray, air, bacteria, etc that may trigger product being corrupted, (2) economic factor in which package cost should not over product processing price, (3) distribution factor in which package should not cause any difficulties in distribution and display, (4) communication factor in which package should communicate product clearly to be well memorized and cause positive image on consumer (5) ergonomic factor in which package should be easy to be carried and open/close, (6) esthetic factor in which package design will give impression of beauty either in color, shape or image, and (7) environment factor which package should be environmentally friendly (Dhameria, 2014). Package creations that consider these factors will
give positive image on the consumer.

### 3.1 Image of Consumer on Visual Component of Package

### 3.1.1 Color and color shade of package

Package color has the function to identify the product, cause attractiveness, decorate product, ensure the readable information, and trigger action (Wirya, 1999). According to Pride and Farrel (2010) color to be used in the package has several meanings such as blue means richness, trust, and safety, meanwhile grey means strength, exclusiveness and success, etc. Although generally color has similar meanings color meaning is also affected by culture, for example, red for China means lucky. Chinese and Japanese give different meaning in grey color. This color is interpreted as a cheap product in China meanwhile Japan thinks that it is an exclusive and high price product.

A visual component that oftentimes becomes the main attention of consumer in seeing product package is color. Fruit leather in both and offline online market has various colors. Research result about color showed that there are 30 percent respondents felt impressed to the fruit leather package that dominated by green color. This color oftentimes used by canned vegetable producer as a label in Asia, Europe, and United States of America. In addition, green is also identical to agricultural products and freshness (Pride and Farrel, 2010). Meanwhile, fruit leather package dominated by black color did not impress respondents.


Figure 1: Respondent's Image on Color of Fruit Leather Package

Similar to consumer image on package color in which dark color shade on package got less impressed of respondents. Generally, respondents had a good image on the bright color shade. This may be caused by the reason that bright color will reflect light further than dark color and make it easy in reading information attached to the package in showing that fruit leather product being packed by


Figure 2: Respondent's Image on Color Shade of Fruit Leather Package

### 3.1.2 Size of Package

Fruit Leather products were packed by using various sizes. Generally, there is Large, medium and small size in which each weight consecutively are 250 gram, 100 gram, and 50 gram. Research result showed that consumer got impressed with medium and small size fruit leather. This similar to Fauziyah (2017) who used the conjoint method 100 gram give the highest satisfaction among others on consumers.


Figure 3: Respondent's Image on Size Fruit Leather Package

### 3.1.3 Package Material

According to Mukhtar and Nurif (2015), there are various material can be used for packaging material such as plastic, wood, and paper. Fruit leather package was created from various packaging material such as plastic, mica, aluminum foil, glasses, and semi aluminum foil. Plastic material and aluminum foil were used to pack sheet shape meanwhile rolled fruit leathers were packed by glasses and mica. There were 30 percent of respondents got more impressed on mica material. This has several benefits namely to prevent damage on rolled fruit leathers, look more beauty and exclusiveness, in addition, it also suitable for soft
and crumbly texture product.
Other research result described that most of the respondents were not impressed to fruit leather that packed by glasses material. This material has several weaknesses namely heavy, high cost, fragile and low thermal shock.


Figure 4: Respondent's Image on Material of Fruit Leather Package

### 3.1.4 Package Design

Package design consists of several elements namely image of product and material, the benefit of the product and mixed of these elements. In designing the package, the producer can choose to prioritize one unsure or mixed of the elements. In this research there were seven alternatives of package design: (1) prioritizing product benefit image, (2) prioritizing product image, (3) prioritizing material image, (4) combination of product image and benefit, (5) combination of material image and benefit, and (6) combination of product image and material image. Analysis result showed that there are 3 groups of respondents that have a different image on the package. The first group is those who felt impressed to the fruit leather package that prioritizes product image. According to this group, product image will give a description about the content of the package. The second group is the consumer that felt impressed to the package of fruit leather design that shows product and material. The third group is impressed with the package that shows material and benefit. This group is consumer type whose habit is consuming with paying attention to nutrition and impact after the consumption.


Figure 5: Respondent's Image on Design of Fruit Leather Package

### 3.1.5 Package Shape

The decision in choosing package should consider several items such as; shape (solid, liquid and powder), and selling condition (selling in big number that will be re- packaged or ready to consume by ultimate consumers) (Wirya, 1999). Fruit leather in the market has various packaging namely cube, beam, long tube, and short tube.

Research result showed that there were 43.33 percent respondents felt impressed to long tube package. According to consumers, the shape is suitable for fruit leather that usually sold in the form of long rolled shape. This also similar to Fauziyah (2017) result that fruit leather packed by tube can give additional utilities on consumers.


Figure 6. Respondent's Image on Shape of Fruit Leather Package

Table 1: Respondent's Image on Verbal Components of Fruit Leather Package

|  |  | Respondents Opinion |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
| No | Verbal <br> Compo- <br> nents | As Consideration <br> People | Not As <br> Consideration <br> \% |  |  |
|  | Easy to <br> carry | 27 | 90 | 3 | 10 |
|  | Easy to <br> open | 24 | 80 | 6 | 20 |
|  | Easy to <br> re-close | 25 | 83.3 | 5 | 16.7 |

### 3.1.6 Consumer image on verbal component of the package

Verbal component or known as the label is information about product identity belongs to the company that is aimed for communicating the product to consumers (Irrubai, 2016). Verbal component of the package can have the function as information and communication media to the consumers. The producer has interest in giving information about the product so that it can be well accepted by targeted consumers. In the other hand, the decision of consumer in purchasing food product is affected by many factors such as halal certification, nutrition, the license of health guaranty (BPOM), production code and expired date, etc (Noviadji, 2014). Product package of fruit leather in the market has been imaged by most of the consumers as the package provide complete information as follow.

Table 2: Respondent's Image on Visual Component of Fruit Leather Package

Respondent Opinion

| No | Verbal Component | Information available |  | No Information available |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | People | \% | People | \% |
| 1 | Brand name | 30 | 100.0 | 0 | 0.00 |
| 2 | Producer name | 28 | 93.3 | 2 | 6.67 |
| 3 | Halal certification | 28 | 93.3 | 2 | 6.67 |
| 4 | Nutrition content | 28 | 93.3 | 2 | 6.67 |
| 5 | License of health guaranty (BPOM) | 30 | 100.0 | 0 | 0.00 |
| 6 | License of Home and Industrial of Food Processing (PIRT) | 27 | 90.0 | 7 | 23.33 |
| 7 | Production <br> Date | 30 | 100.0 | 0 | 0.00 |
| 8 | Expired Date | 30 | 100.0 | 0 | 0.00 |
| 4 | CONCLUSION AND |  |  |  |  |
| RESEARCH IMPLICATION |  |  |  |  |  |

The result of analysis and discussion have shown an illustration of consumer image on several components such as visual, features, and verbal of fruit leather package. In the visual components, consumer felt impressed with the fruit leather in a green package, bright color shade, medium size, made of mica, and tube shape. In addition, the consumer also felt impressed to the easiness in the opening, re-closing and carrying. In the verbal components, most of the consumers have the image that fruit leather package has complete information. The implication of this research is that fruit leather producers are expected to produce more numbers of products by considering variation of package and consumer image on fruit leather package, and also maintain both verbal and visual component that has been positively imaged by consumers.

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## REFERENCES

Abate G, Peterson, H.C. 2005. Rapid opportunity assessment: Fruit Market. Product Center for Agriculture and Natural Resources. MI.
Ampuero, O., and Natalia, V., 2006 .Consumer Perceptions of Product Packaging. Journal of Consumer Marketing, 23(2): 100-112.
Borishade, TT., OO. Iuseye, and DJ. Favour. 2015. Empirical Study of Packaging and Its Effect on Consumer Purchase Decision in a Food and Beverages Firm. European Journal of Business and Social Sciences, 3(11): $44-53$
Baourakis, G., G. Baltas, M. Izmiryan, and N. Kalogeras, (2007). Brand Preference: A Comparative Consumer Study in Selected EU Countries. Operational Research. An International Journal, 7(1); 105-120
Chrysochou, P., A. Festila and V. Kulikovskaja. 2015. Content Analysis of Health Product Packaging Design. MAPP Centre, Department of Management, Aarhus University
Dhameria, V., 2014. Analisis Pengaruh Keunikan Desain Kemasan Produk, Kondusivitas Store Environment, Kualitas Display Produk Terhadap Keputusan Pembelian Impulsif (Studi pada Pasaraya Sri Ratu Pemuda Semarang). Jurnal Sains Pemasaran Indonesia, 8(1) : 1-44 FAO. 2014. Appropriate food packaging solutions for developing countries. Rome FAO. Fruit Leather. www.fao.org. Diakses tanggal 1 Maret 2016.
Fauziyah, E., 2017. Consumer Preference Towards Fruit Leather Attributes of Madurese Exotic Tropical Fruits. International Research Journal of Business Studies, 10(2); 111-122
Golan, E., F. Kuchler, and L. Mitchell. 2001. Economics of Food Labeling. Journal of Consumer Policy 24 : 117-184
Grundey, D., 2010. Packaging: Surveying Consumers’ Attitude Towards Selected Cosmetic Brands, Economics \& Sociology, 3(1): 87-103.
Gunawan, E. dan I. Nurmawan, 1996. Metode Penelitian Bisnis. Erlangga, Jakarta.
Jalili, N., M. Mousakhani, M. Behboudi, 2011. Nationalized Model for Commercialization, Field Study in Iran. Interdisciplinary Journal of Research
in Business 1(4): 118-129
Irrubai, ML., 2016. Strategi Labeling, Packaging Dan Marketing Produk Hasil Industri Rumah Tangga. Sosio Didaktika: Social Science Education Journal, 3 (1): 17-26

Klimchuk, M. R. and S.A. Krasovec, (2006). Packaging Design: Successful Product Branding from Concept to Shelf. John Wiley and Sons, New York.
Klein, N. M., \& Burke, R. R.(2001). Packaging Communication: Attentional Effects of Product Imagery. Journal of Product \&Brand Management, 10 (7): 403-422
Kotler, P., Armstrong, G., Wong, V., Saunders, J. (2008), Principles of Marketing, 5th European Editon, Harlow: Pearson Education Ltd.
Letona, P., Violeta. C., Christina, R., and Joaquin, B. 2014. A Qualitative Study Of Children's Snack Food Packaging Perceptions and Preferences. BMC Public Health, 14 (1274):3-6
Mukhtar, S., dan M. Nurif. 2015. Peranan Packaging Dalam Meningkatkan Hasil Produksi Terhadap Konsumen. Jurnal Sosial Humaniora 8(2): 181-191
Noviadji, B.R., 2014. Desain Kemasan Tradisional dalam Konteks Kekinian. Jurnal Fakultas Desain , 1(1): 10-21Pilditch, J., 1973. The Silent Salesman: How to Develop Packaging That Sells. Business Books Ltd, London.
Pride, W.M., and O.C. Farrel, 2010. Marketing. SouthWestern Cengage Learning.
Raheem, D. 2012. Application of Plastics And Paper as Food Packaging Materials
Silayoi, P., \&Speece, M. (2004). Packaging and Purchase Decisions: An exploratory Study on the Impact of Involvement Level and Time Pressure. British Food Journal, 106 (8): 607-628.
Silberbauer, A. and M. Schmid., 2017. Packaging Concepts for Ready-to-Eat Food: Recent Progress. Journal of Packaging Technology and Research, 1:113-126
Wirya, I., 1999. Kemasan yang Menjual : Menang Bersaing Melalui Kemasan. Gramedia Pustaka Utama, Jakarta.
Zemlickiene, V. and D.I. Maditinos., 2012. Marketing Strategy Formulation For Innovative Product Development Process. Verslas: teorija ir praktika, 13(4): 365-374.

