

Increasing Purchase Intention for Social Enterprise Product Through Re-Designing Product Packaging with Neuromarketing Approach (Case study: Cireundeu Indigenous Community)

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Abstract. *The primary purpose of this paper is to explore how redesigning product packaging can increase customer purchase intention. The uniqueness of this research is the use of neuromarketing principles in redesigning product packaging, and the context that will be discussed is a social enterprise product. The methods used are mixed methods consisting of qualitative methods, experimental design, and quantitative methods. The principle of neuromarketing discussed in this study is eye-tracking. The quantitative research will then test the relationship between product packaging and purchase intention. A new packaging design was created for RASI product. For a long time, RASI (Beras Singkong or Cassava Rice) has been an iconic product for Cireundeu due to its heritage and unique culture. The eye-tracking experiments strongly correlate the new packaging design and product purchase intention. This article resulted in a new packaging design by applying the neuromarketing principle in a social setting.*

Keywords: *Design, product packaging, neuromarketing, purchase intention, social enterprise*

Abstrak. *Tujuan utama dari penelitian ini adalah untuk mengeksplorasi bagaimana mendesain ulang kemasan produk dapat meningkatkan niat beli dari pelanggan. Keunikan penelitian ini adalah penggunaan prinsip neuromarketing dalam mendesain ulang kemasan produk, dan konteks yang akan dibahas adalah produk kewirausahaan sosial. Metode yang digunakan adalah metode campuran yang terdiri dari metode kualitatif, desain eksperimen, dan metode kuantitatif. Prinsip neuromarketing yang dibahas dalam penelitian ini adalah eye-tracking. Penelitian kuantitatif kemudian akan menguji hubungan antara kemasan produk dengan niat beli. Desain kemasan baru diciptakan untuk produk RASI. Untuk waktu yang lama, RASI (Beras Singkong) telah menjadi produk ikonik dari Kampung Adat Cireundeu. Eksperimen pelacakan mata sangat berkorelasi dengan desain kemasan baru dan niat pembelian produk. Artikel ini menghasilkan desain kemasan baru dengan menerapkan prinsip neuromarketing dalam lingkungan sosial.*

Kata kunci: *Desain, kemasan produk, intensi membeli, kewirausahaan sosial, eye-tracking*

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Introduction

Neuromarketing has been an emerging topic in the past decade. It generates more accurate insight into the consumer behavioural pattern from other marketing research methods and shows more effective and cost-efficient strategies. Neuromarketing is neuroscience, the most advanced mechanical technique for comprehending how consumers' minds work and acquiring perception into consumers' intentions regarding a particular product. It employs eye-tracking, magnetic resonance imaging (MRI), and electroencephalogram (EEG) to ascertain how customers react to stimuli or products. Due to the high rate of accuracy and insight into consumer behaviour, an increasing number of businesses are utilizing this method to increase profit ultimately.

However, this approach has not gained as much traction in the social enterprise community as in the "for-profit" sector. Drucker argues that even the "traditional for-profit" business is a part of society embedded with a social purpose and thus serves a social function (Alum & Drucker, 1986), still social entrepreneurship's primary objective is to address social issues through a business lens. PLUS (Platform Usaha Sosial / Platform for Social Enterprise) identified 828 social entrepreneurs in Indonesia in 2018, individually or in communities. In achieving the SDG Goals, Indonesia commits to eradicating poverty by promoting local social entrepreneurship in numerous regions throughout the country. However, several local governments have difficulty resolving poverty issues in their districts. Cireundeu Traditional Village, where this research was conducted, is one of these districts that faced various social issues, including poverty due to a lack of infrastructure, business systems, and markets.

The Cireundeu community tries to resolve this by strengthening their social entrepreneurship. The people of Cireundeu Village are classified as indigenous communities because they have preserved the traditions passed down from

their forefathers and mothers. One tradition that this indigenous community has maintained is the consumption of their staple food, 'rasi'. Rasi is made from poisonous cassava, a root vegetable that is low in carbohydrate, protein, and fat but high in fiber. The Cireundeu indigenous community's (called Kampung Adat Cireundeu) efforts to sell cassava-processed products as a form of social entrepreneurship to alleviate social problems, particularly poverty in their village, using the revenue generated by the sale of their products. To achieve more sustainable conditions for their social enterprise, they require a more effective marketing strategy to increase customer awareness of the local cultural value of healthy food and purchase intent for their cassava-based product. Therefore, the primary purpose of this paper is to explore how redesigning product packaging that characterizes local cultural value can increase customer purchase intention for Cireundeu's cassava-based product.

Based on previous interviews, a small number of local entrepreneurs in Kampung Adat Cireundeu were losing income due to an excess of unsold products, partly due to a lack of skills and knowledge regarding designing exciting packaging for the products (Auttarapong, 2012). Auttarapong (2012) moreover argues that eye tracker mapping is one of the main tools used in neuromarketing research, with nearly 25% of the brain regions related to visual stimuli, either tangible or intangible. Package design is considered a cost-effective and essential tangible visual marketing tool due to its vital features such as 'attention-grabbing', categorization, and conversation of aesthetic, symbolic, and valuable information for customers (Husić-Mehmedović et al., 2017).

Social Innovation

Social Innovation in Social Entrepreneurship Bill Drayton (Founder of the Ashoka Foundation), as one of the initiators of the concept of social entrepreneurship, said that there are two main things in social entrepreneurship, namely the existence of social innovation and the emergence of individual visionaries.

Social innovation can change the system in society, and the emergence of individual visionaries, entrepreneurial, creative, and ethical was behind these innovative ideas (Praszkiec et al., 2009).

The existence of social innovation capable of changing the system in society and the emergence of individual visionaries who are entrepreneurial, creative, and ethical behind these innovative ideas (Praszkiec et al., 2009). Social entrepreneurship is a business activity characterized by an innovative process and the integration of resources to pursue opportunities to catalyze social change and address social needs (Mair & Martí, 2006). Both definitions share a common thread: the connection between social entrepreneurship and social innovation. Social innovation is a term that refers to innovative activities and services that are motivated by a desire to address social needs and are typically spread through organizations whose primary mission is social (Mulgan et al., 2008). The concept of social innovation appears aimed at resolving social issues or needs. According to researchers, social problems or needs serve as the impetus for social innovation (Lawrence et al., 2014).

Neuromarketing and Eye-Tracking Application

A new perspective on brands and products has emerged in recent years due to the integration of neuroscience and marketing strategy; thus, "neuromarketing" was coined. Researchers have better understood how the human brain works about how brands and products are represented, recognized, and interpreted by consumers due to this development. Much of packaging's influence on consumer choice and behavior occurs subconsciously, making it difficult for marketers to predict consumers' purchasing behavior because consumers frequently do not behave as they say they will (Genco et al., 2013). Various studies demonstrate the importance of incorporating neuromarketing principles into the marketing process, increasing product sales (Kottier, 2014).

Consumer purchase behavior can be predicted using a novel technique called neuromarketing, which looks at how people's brains work and evolve as they make decisions (Philip, 2018). Based on research conducted by Philip (2018), neuromarketing has a significant effect on the customer's purchasing choice. Consumers' purchase intention can be enhanced by increasing their perception of the product's target's attractiveness. A high assessment of the target's attractiveness is affected by the product's appearance (Gunadi & Stephanie, 2021). Marketers utilize it to determine and forecast their customers' tastes and preferences. However, the majority of companies remain to use qualitative methods to determine consumer interest, but these methods are still considered ineffective due to various uncertain factors (Januar et al., 2021). In a study conducted by Januar et al. (2021), neuromarketing responses to the human brain were measured using signal analysis (EEG).

In order to generate more effective strategies to attract the attention of consumers, the use of neuromarketing is an appropriate tool. For example, crafting a campaign with less information but with appropriate colors ensures better results in purchasing products or services (Aguilar et al., 2018). Neuromarketing has been widely adopted as a primary tool in behavioral economics (Lyapina et al., 2020). Hasnain et al. argued that neuromarketing is the best way to comprehend the fundamental mechanisms underlying customer shopping behaviors, a central objective of marketing research for decades (Hasnain et al., 2019). Furthermore, neuromarketing is well-known for generating competitive advantage through marketing that satisfies customers' emotional needs and provides a unique experience (Karpova et al., 2019). Neuromarketing requires biometric devices to capture customers' cognitive responses to marketing stimuli, such as eye-tracking, skin conductance, and heart rate (Ford, 2019). In neuromarketing, eye-tracking is used to analyze participants' eye movements in response to a visual stimulus in specific situations (Santos et al., 2015). Thus, these techniques are critical for visual advertising or packaging design.

Mansor and Isa (2018) had successfully used eye-tracking to ascertain consumers' visual focus on consumer goods packaging (Mansor & Isa, 2018). The eye tracker can be used to analyze the attractiveness of any marketing (websites, digital projects, print materials, videos) and to rediscover the buying process to understand better how customers perceive product placement on store shelves (Nazarova & Lazizovich, 2019). Regardless of the benefits of neuromarketing in manipulating consumer behavior, marketers must research traditional methods to reveal consumers' conscious choices (Shukla, 2020).

Swasty (2019) revealed that customer preferences obtained from quantitative research using questionnaires have different results from eye tracking observations. In other words, what consumers want is not always consistent with what consumers observe (Swasty et al., 2019). Therefore, business owners need to consider packaging design to attract more attention and foster buyer interest by conducting eye-tracking experiments. Below is table 1 exploring previous study of product packaging.

Table 1.
Elements of Product Packaging

Authors	Brand	Brand logo	Colour	Typography (Font style)	Graphic (Image)	Shape	Size	Material	Cultural value	Story	Product information	Notes
(Cahyorini & Rusfian, 2011)	v		v	v	v	v	v	V				Retail product
(Rettie & Brewer, 2009)	v		v	v			v	V				Retail product
(Metcalf et al., 2010)	v		v	v	v	v		V				Eco-friendly product
(Ni Luh Desi In Diana & Dewi, n.d.)	v								v		v	Local product
(Rompay et al., 2016)			v		v							Healthy product
(Ooijen et al., 2017)						v						Healthy product
(Husić-Mehmedović et al., 2017)	v	v	v									Retail product
(Mead & Richerson, 2018)			v									Healthy product
(Mai et al., 2016)			v									Healthy and tasty product
(Nawaz & Imamuddin, 2014)			v		v			v				FMCGs goods
(Poturak, 2014)			v	v	v			v			v	Retail product
(Auttarapong, 2012)			v	v	v							Retail product
(Abdullah et al., 2013)			v	v	v						v	Retail product
(Khan et al., 2018)			v	v								Retail product
(Kuvykaite et al., 2009)	v		v		v	v		v			v	Retail product
This Research	v	v	v	v	v	v	v	v	v	v	v	Social Enterprise

Based on Table 1, it can be concluded that the storytelling element of product packaging is under-researched or under-discussed, as evidenced by the lack of finding or studies examining the impact of storytelling on packaging design on purchase intention, particularly for social enterprises or other "companies settings." Storytelling was found to be more effective at changing attitudes, but it also resulted in more sustained change; thus, it resulted in more significant behavioural shifts and increased customer retention (Hamelin et al., 2020).

As a result, this aspect of the research, which elaborates on the story context, focuses on Cireundeu village's community-based social enterprise. This study analyzes the following elements: product information (ingredients, product name, and flavour), brand name, and verbal story. Additionally, there are non-verbal elements such as colours, typography (font), shape, size, graphic, material, and brand logos. The story was written to demonstrate the Cireundeu Village's cultural values. The framework of this research is shown in Figure 1.

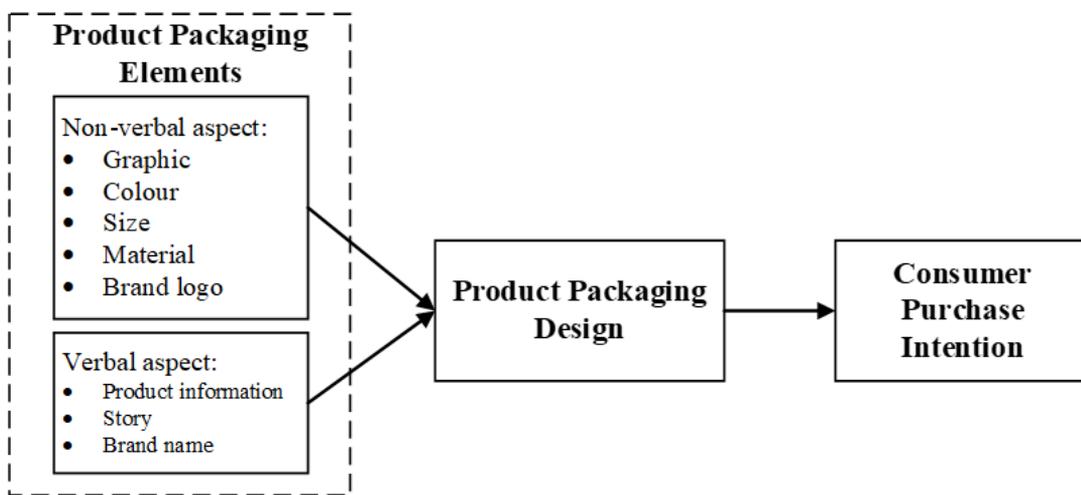


Figure 1. Research Framework

Referring to table 1, this study is intended to close the gap of research on generalizing the neuromarketing perspective of the correlation between product packaging design and customer purchase intention. This study employed a mixed-method methodology that included qualitative methods, experimental design research, and quantitative methods. Moreover, it introduces a new variable, storytelling, to assess purchase intention using neuromarketing. Details of the integrative qualitative and quantitative research flow and methods discussed in the following sections.

Research Methodology

The Cireundeu social enterprise's product packaging redesign would follow the principle of place branding, which emphasizes the product's origin more than the brand itself. For a long time, RASI (Beras Singkong or Cassava Rice) has been an iconic product for Cireundeu due to its heritage and unique culture. As a result, the packaging for this product is being redesigned. The independent variable is the product packaging design, and the dependent variable is consumer purchase intention, as illustrated in Figure 2.

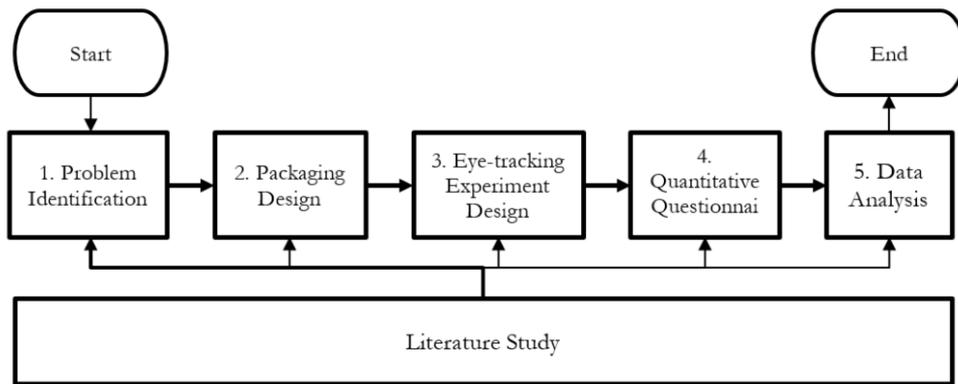


Figure 2.
Research Methodology

The research methodology used in this research is as per Figure 2; meanwhile, the milestones of each research stage are detailed in Table 2.

Figure 2 shows that this study consists of five significant steps to applying the mixed methods: qualitative design, experiments, and quantitative questionnaire. A literature study was being conducted as an essential foundation of the methods in every significant step.

Table 2.
Research Activities and Deliverables

No	Activities	Input	Methods	Output
1	Problem Identification	Social phenomenon	interview, analysis	segmented problem
2	Packaging Design Need Identifications	segmented problem	focus group discussion with shareholders, current packaging analysis	identified needs, target respondents (users), performance measurement: purchase intentions
3	Packaging Conceptual Design	identified needs, current packaging design	design sprint	new packaging design
4.a	Eye-tracking Experiment Design	new packaging design, current packaging design, a literature study of eye-tracking experiments	design of experiments	Eye-tracking experiments design
4.b	Eye-tracking Experiment Data Collection and Processing	Eye-tracking experiment designs	laboratory experiments followed by exit (post-experiment) interview	Eye-tracking data (heat map), purchase intention descriptive statistics from respondents

Table 2. (Continued)
Research Activities and Deliverables

No	Activities	Input	Methods	Output
5.a	Questionnaire Design	new packaging design, current packaging design, a literature study of purchase intentions	questionnaire development, content validation	questionnaires
5.b.	Questionnaire Data Collection and Processing	questionnaires	convenience sampling	purchase intention descriptive statistics, correlation score of variables influencing purchase intentions
6	Data Analysis	purchase intention descriptive statistics (5.a and 5.b), correlation score of variables influencing purchase intentions, eye tracking data (heat map)	qualitative and data-driven analysis	Data-driven explanation of the increment of purchase intention from neuromarketing point of view, research limitations, further research opportunity

The qualitative research was conducted to identify and understand the values held by a social enterprise in the Cireundeu indigenous community. The identified values were then combined with neuromarketing principles to design the product packaging. This research conducted in-depth interviews and focused group discussions with several key members of the Cireundeu indigenous community and two BAPPEDA employees. Using design sprint methods, the designer created two packaging alternatives that emphasize the indigenous community of Cireundeu's local branding and story. Design sprint methods are capable of rapidly developing conceptual detail (Correio & Fleury, 2019).

The packaging design alternatives were then validated with stakeholders to determine which design was superior for the experiment, which is the first output of this research. Following that, eye-tracking experiments were conducted on improved and current packaging designs to ascertain consumers' eye movement responses to both designs, mainly whether the consumer is aware of the story and local branding featured on the packaging designs. Consumer eye movement data were collected randomly from respondents from the population of Cireundeu's target market: middle-class travelers aged 18-40 years old using Tobii X2-30 eye tracker attached to a 14 inch laptop screen.

Each respondent was required to scan three stimuli for seven seconds, that creates the total gazing period of 21 seconds. The four stimuli are the front face of the current packaging design and front and back face of the proposed packaging design. The gaze of all respondents were then used to generate heat maps. We examined forty respondents as suggested by Tobii to generate the heatmap (Tobii Technology, 2012). The density of a consumer's eye fixation duration on specific regions of a design stimulus shall be represented by heat map data (Tobii Technology, 2012). A post-experiment interview was performed on the experiment participants with guided questions for having a deeper understanding of the participant's consciousness upon the experiment result. The guidance of the interviews consisted of questions comparing the current and proposed packaging design, as following:

- Which design is considered more informative? Why?
- Which design is more interesting to buy? Why?
- Which design is inviting curiosity upon the product? Why?

The analysis of heat map data was then supplemented with quantitative surveys to ascertain consumer perceptions of the design's purchasing intention. It is a traditional method of research in which a survey is typically linked to a deductive research approach and an experiment strategy. Then the variables associated with the survey are tested through statistical analysis. The questionnaire was developed by the variables' characteristics as specified in the research frameworks (see Figure 2). The questionnaire is developed to understand the perceptions' of respondents to the design features of proposed packaging. One feature of the design is represented by one particular section in the design and one specific question addressing the influence of the design features toward the buying intention.

Therefore, this questionnaire did not require the reliability test. The likert scale 1 to 5 is used to capture the respondents' perception with scale 1 = very unlikely to buy while scale 5 = very likely to buy. Content validity procedure was performed by testing the questionnaire to potential respondents (3 person) and an expert. The process was showing that the designated questionnaires were showing proper content to measure the objective of the research.

The minimum number of valid responses required for the questionnaires was calculated using a 95 percent confidence interval and a 5% error rate (Hair et al., 2014). An examination in the demographic background and cross matrix analysis were performed to gain a better understanding on the description of the questionnaire responses. Statistical analysis of Pearson Correlation, was used to ascertain the correlation between features of packaging design and purchase intentions. The questionnaire's data processing will explain the relationship between features of product packaging design and purchase intention for Cireundeu products.

Results and Discussion

Researchers are researching this paper from problem identification to data analysis. Thus, the study's output is a new product packaging design and the analysis of data. Researchers started this research by identifying the issues that exist in Cireundeu Indigenous Village's first stage. According to the results of interviews with local government officials, they indicate that Cireundeu Traditional Village was collaborating with Cimahi City's BAPPEDA at the time to conduct place branding activities. In place branding, the area of origin is emphasized as a master brand rather than specific products. The primary objective of this endeavor is to promote Kampung Adat Cireundeu's cultural and educational tourism.

Along with interviews with local government officials, interviews with residents of Kampung Adat Cireundeu were conducted. As per the interviews conducted with residents, the master brand logo depicted in Figure 3 was

designed by one of the Cireundeu community's prominent figures. This logo depicts a "Julang Ngapak," a traditional Sundanese house structure, including kampung adat Cireundeu.



Figure 3. MasterBrand Kampung Adat Cireundeu

Qualitative research with a variety of stakeholders has revealed that certain information is required when designing new packaging. The information includes the four primary colors that have become the identity of Cireundeu Indigenous Village (white, black, yellow, and red).

The traditional typography used in this village is a Sundanese (kaganga) script used in much of West Java, nutrition facts for the product, instructions on cooking and presenting Cassava Constellations, and the benefits of this product. As illustrated in Figure 4, the outcome of the redesigning process is as follows:



Figure 4. Alternative packaging (a) Yellow version (b) Red version

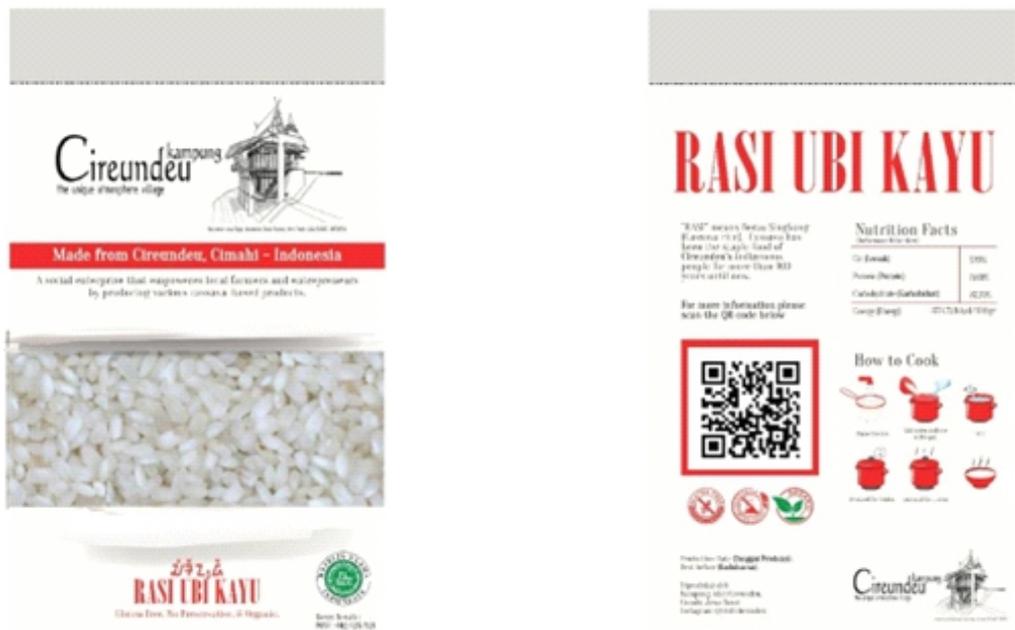


Figure 4. (Continued)
Alternative packaging (a) Yellow version (b) Red version

The shareholder chose the red version of the packaging over the white version because a previous study established red is a more appealing color for food products. Mr. Elivas Simatupang, M.Sc. (former Head of Research and Development at BAPPEDA Kota Cimahi) and Jana Hermawan, S.IP., S.T. (former Head of Subdivision at Research and Development at BAPPEDA Kota Cimahi) did review

and approve the final design of the product packaging. Both experts validated and provided positive feedback to ensure that Kampung Cireundeu was given precedence over Rasi Ubi Kayu. Their comment refers to the location's branding and the potential for future product development. The components in the packaging design can be seen in Figure 5.

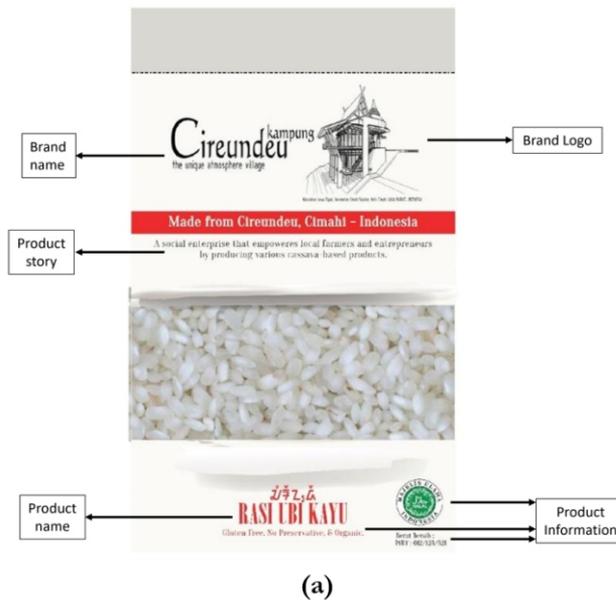


Figure 5.
Chosen Packaging Design with Explanation (A) Front Side (B) Back Side

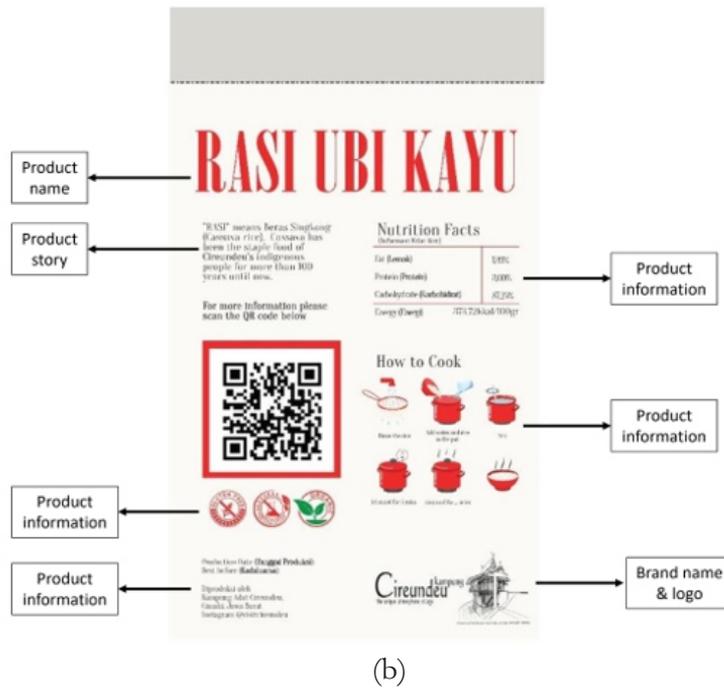


Figure 5. Chosen Packaging Design with Explanation (A) Front Side (B) Back Side

Researchers then conducted eye-tracking experiments as part of the next phase of this research. An eye-tracking experiment was conducted with forty respondents who represent the target market for Kampung Adat Cireundeu's product to ascertain consumer perceptions. The eye-tracking experiment established a pattern of unintentional consumer eye movement data.

The data for the heat map are derived from the fixation duration of gaze plots of all respondents (see Figure 6). Researchers derive this from the heat map that particular attention was paid to a particular visual element. The color indicates the duration of the respondent's gaze on an area, the darker the area, the more intense the consumer's gaze on that point.

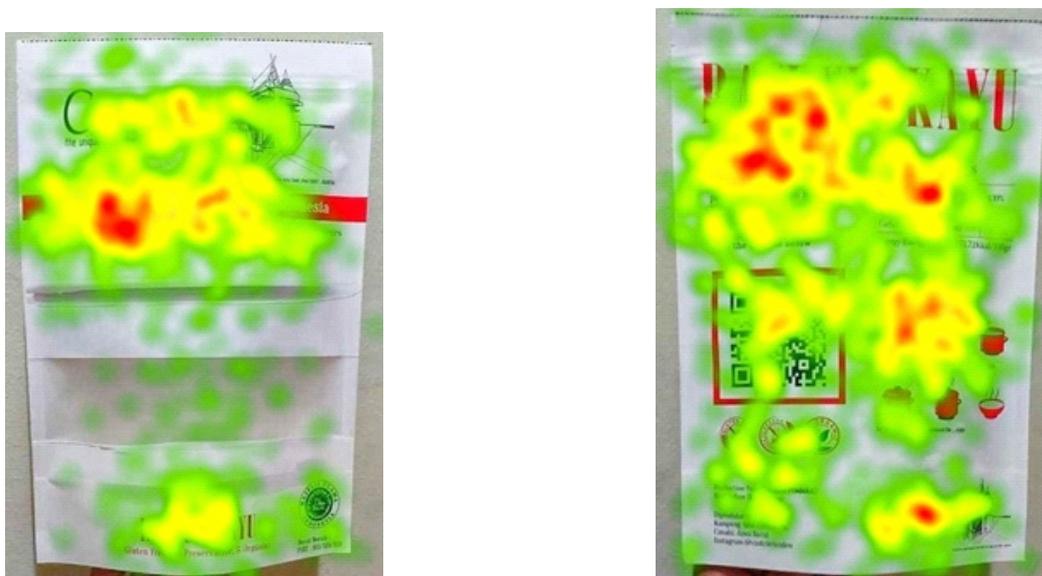


Figure 6. Heat Map Result of New Packaging Design

Three post-experiment questions and one-on-one interviews were used to analyze heat map data to ascertain consumer perceptions of the design's purchasing intention. According to the post-experiment interview's findings, 87.5 percent of respondents are more interested in purchasing the product inside the proposed design, and the new packaging design piques their interest and curiosity for the product. Furthermore, 90% of respondents believe the new packaging design is more informative than the existing packaging. The interview discovered that a small percentage (12.5%) of respondents preferred the older packaging due to the presence of photos of the product ready to eat.

Following the Eye-tracking Experiment, quantitative research is conducted to ascertain the correlation of variables influencing purchase intentions as the second stage. Quantitative research was conducted through the use of questionnaires or surveys. The survey gathered 162 responses from individuals who identified themselves as the target market for Kampung Adat Cireunde'u's product. The variables (brand, logo, color, typography, image, shape, material, story, cultural significance, and information) follow a normal distribution. The data obtained from the survey were not tested for validity and reliability because each variable was only represented by one indicator. The demographic examinations of the respondents is shown in Table 3.

Table 3.
Respondents Demographic Description

Demo-graphics	Proportion
Gender	Male (39.2638%); Female (60.1227%)
Age (year)	<17 (4.2945%); 18-24 (55.8282%); 25-34 (6.7485%); 35-44(14.1104%); >44 (18.4049%)
Working status	Students (60.1227%); Employee (33.7423%); Entrepreneur (3.6810%); Others (1.8405%)

Cross matrix analysis is performed for two major reasons: examining the potential target market, and portraying the questionnaire responses to four different groups based on their prior exposure of Cireunde'u and its product. The criteria of prior product knowledge are two binary variables (yes/no) of experiences for visiting Cireunde'u and buying RASI.

The results of cross matrix analysis are depicted in Figure 7. and Table 4 - 6.

The cross matrix had portrayed that the buying intention is very limited for a solely product. The positive buying intention might happen wherever the product's selling is accompanied by the provision of spatial and product's experience.

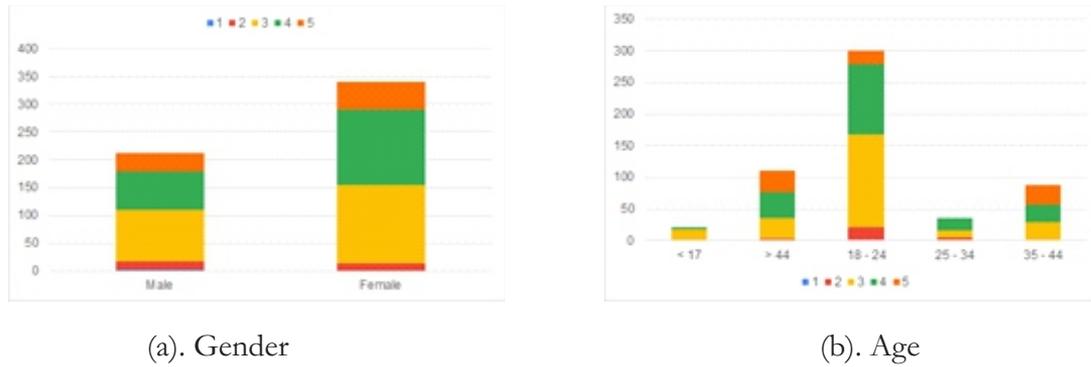


Figure 7. The Proportion of Buying Intention of the Respondents (1 = very unlikely to buy; 5 = very likely to buy) (a) Gender (b). Age

Table 4. Cross Matrix of Respondent's Average Score on Buying Intention

Spatial Exposure (Site Visit)	Product Exposure	
	Not Experienced	Experienced
Not Experienced	3.2018	3.0000
Experienced	3.6471	4.0294

Table 5. Cross Matrix Result of Respondent's Average Score on the Influence of Story towards Buying Intention

Spatial Exposure (Site Visit)	Product Exposure	
	Not Experienced	Experienced
Not Experienced	3.3853	3.500
Experienced	3.8823	4.2352

Table 6.
Cross Matrix Result of Respondent's Average Score on the Influence of Logo towards Buying Intention

Spatial Exposure (Site Visit)	Product Exposure	
	Not Experienced	Experienced
Not Experienced	3.2752	2.000
Experienced	3.3529	3.7059

A Pearson Correlation Bivariate was conducted using SPSS, and the resulting data are shown in Table 6. The result indicates that all variables have a Pearson correlation coefficient greater than 0.3, indicating that all packaging elements are strongly correlated to purchase a product (Hair et al., 2014).

Moreover, intention_L (intention to buy the product of Rasi Ubi Kayu) and Intention (Product packaging makes me want to buy a product) are both correlating in 0.607 (> 0,3), which means that the improved design is creating positive perceptions on its target market.

Table 7.
Pearson Correlation Test

		Intention_L	Intention
Brand	Pearson Correlation	.625**	.428**
Logo	Pearson Correlation	.449**	.436**
Colour	Pearson Correlation	.386**	.449**
Typography	Pearson Correlation	.463**	.488**
Picture	Pearson Correlation	.654**	.676**
Shape	Pearson Correlation	.536**	.630**
Material	Pearson Correlation	.512**	.587**
Story	Pearson Correlation	.601**	.517**
Cultural	Pearson Correlation	.545**	.449**
Info	Pearson Correlation	.551**	.525**
Intention_L	Pearson Correlation	1	.607**
Intention	Pearson Correlation	.607**	1

***.* Correlation is significant at the 0.01 level (2 -tailed).

New Packaging Design

Through interviews with local governments, Cirendeudeu used Doi Tung as best practices for empowering Cirendeudeu products in promoting products' region of origin. Doi Tung is a mountain in the Thai highlands of Chiang Rai Province, Thailand, that has undertaken regional development projects and implemented place branding principles. Kampung Adat Cirendeudeu has already implemented place branding activities such as placing the master brand's signboard on each villager's house used for homestays.

Figure 4 shows two possible packaging configurations for the RASI UBI KAYU. The new packaging adheres to the Kampung Adat Cirendeudeu's traditional identity (adat) colours of white, black, yellow, and red. The packaging's top front and bottom back portions feature prominent branding. The product's story is placed beneath the information about the product's origin in the lower portion of the top front packaging. The story evolved due to discussions between researchers and local government officials. Sundanese typography is used as the product's brand on the bottom portion of the front packaging to emphasize that this product is both a cultural heritage of Sunda and a master Indonesia brand. The Halal logo and manufacturer license code are located in the bottom right corner of the front packaging to reassure the consumer about the product's quality.

The reverse side of the packaging aimed to provide additional information to the consumer about the product's quality and utility. Three logos indicate the product's quality: gluten-free, organic, and preservative-free, as well as its nutritional facts. The cooking instructions are included to ensure that consumers can cook this product and achieve the desired quality. To comply with Indonesian government regulations regarding packaging content, the bottom left of the back packaging contains the production date, expiration date, and the manufacturer's address and contact information.

Eye-tracking Experiment

After several stakeholders validated the new packaging design, researchers conducted eye-tracking experiments to assess consumers' perceptions. Figure 5 demonstrates that the product's story, brand name, logo, and product information receive the most attention. Likewise, typography and image branding have a high average gaze density. The respondent will spend the most time viewing the story, brand name, brand logo, and product information associated with the product variables. The packaging components are visually appealing to the target consumers of RASI products. The heat map analysis of the eye-tracking experiment session showed that 87.5 percent of respondents were more interested in purchasing the product. Most of the target market intends to purchase products with a new packaging design due to the product's inviting curiosity.

Furthermore, 90% of respondents believe the new packaging design is more informative than the existing packaging. The one-on-one interviews discovered that a small percentage of respondents preferred the older packaging due to photos of the product ready to eat. The product image in Figure 6 helps consumers visualize the finished Rasi Ubi Kayu. As part of a scarce product on the market, the heat map confirmed the image guarantee of the product's delectability. Shown by the area with the highest gaze density for vintage packaging is the ready-to-eat section.



Figure 8.
Heat Map Result of Old Packaging Design

Quantitative Findings

The quantitative research found corroborated eye-tracking experiments that show a strong correlation between all new and packaging designs elements. Statistical tests show that all variables have a Pearson correlation value greater than 0.3, indicating that all elements in the packaging are strongly correlated to purchasing a product (Hair et al., 2014).

Social storytelling was successfully integrated into the packaging of RASI products (Cassava Rice or Cassava Rice) by including short stories about the products and brand logos in the new packaging design.

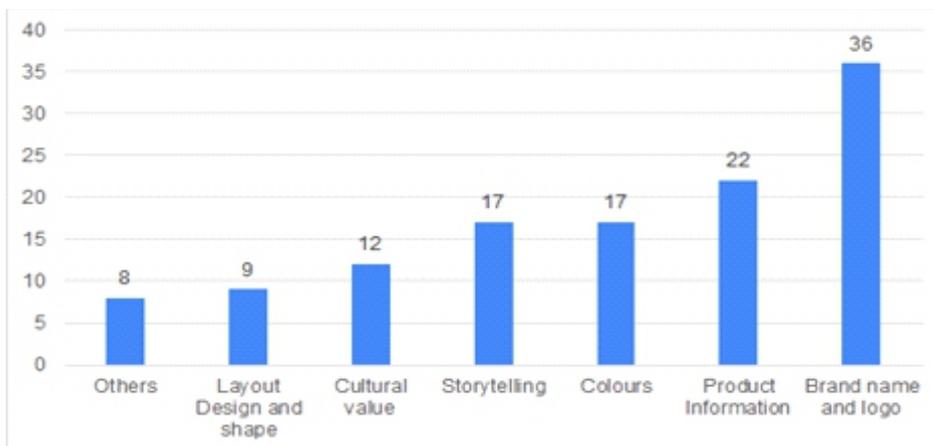


Figure 9.
Attractive Packaging Components Based on The Survey

The most highly correlated elements are the brand, the image, and the story. These findings indicate that packaging components have the most significant influence on the target customer's intention to purchase. Based on a survey conducted in the post experiment shown in Figure 9, it was found that most respondents were interested in brand name and logo. Prior research supports this outcome by advocating that most communication is nonverbal; consumers primarily think in images. This advocacy is based on the dual processing theory and empirical evidence which indicates that the oldest thinking process (known as System 1) has characteristics that are associated with implicit, emotional, low-effort, and visual-contextualized notions (Woodside, 2010).

Similar findings have been demonstrated in previous studies on a brand (Abdullah et al., 2013; Cahyorini & Rusfian, 2011; Husić-Mehmedović et al., 2017; Kuvykaite et al., 2009; Metcalf et al., 2010; Ni Luh Desi In Diana & Dewi, n.d.; Rettie & Brewer, 2009). The results of the eye-tracking experiment confirm this, as indicated by the red area on the heat map for the brand, image, and story.

The survey findings (Figure.9) also reveal that cultural value contributes to positive brand perception. It is generally known that even superficially simple stimuli may trigger various semantic associations. Understanding this latter kind of association, which specific stimuli/product qualities may induce, is crucial for sensory marketing research and package design (Parise & Spence, 2012). By using the logo of a Sundanese traditional house (julang ngapak) and narratives of the historical tradition of 'rasi as a staple food for the indigenous community,' it was discovered to be possible to create a stimulus congruent with the brand's entire story and message, appealing to the emotional side of the consumer.

The overall test results validate previous research findings on the usefulness of incorporating storytelling into sensory marketing strategies.

With a compelling story, a company may differentiate itself from competitors, attract consumers' attention, and provide an emotional added value that is more effective and successful beyond just presenting facts and data (Mucundorfeanu,2018).

Conclusion

This study investigates product packaging design and its relationship to customer purchase intention in the context of a community-based social enterprise. The research gaps identification aided in revising and reprioritizing future research in this field. Based on the design of this study and the findings from previous research summarized in the summary table, the expected outcomes of this study are a valuable output that provides information to producers of cassava-based products in Cireundeu Village about the type of packaging design that is appealing to targeted customers. Correspondingly, the anticipated outcome is establishing a more sustainable community-based social enterprise in Cireundeu Village. Alignment to this research aims by applying neuromarketing principles to increase a customer's purchase intention; the eye-tracking experiments confirm that all elements of the new packaging design strongly correlate with the packaging design.

This study also contributes to brand management research and practice by demonstrating the impact of storytelling on customer experiences through packaging design. Consumers who were exposed to the story element were considerably more interested in the brand and inclined to purchase the product. The findings are also crucial from a managerial standpoint. They illustrate how brand storytelling may be used to establish and strengthen positive brand perceptions via packaging design.

An interesting discovery based on one-on-one interviews revealed that a small number of respondents favored the previous packaging since it included photographs of the food when it was ready to be consumed. According to Mucundorfeanu (2018), the uniqueness of the ingredient might be a critical element of the storytelling aspect. Therefore, this study recommends including the final product visualization as a storytelling element in the package design to increase the persuasive force of storytelling in the future research.

This research main limitation is the scope of the study, because it focuses exclusively on customer purchase intentions related to packaging design. This study also did not assess the targeted customers' purchasing decisions or capabilities. Researchers recommend that the proposed research model be empirically validated in a subsequent study.

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