



## Analysis of the Design of Pentol Sales Facilities According to the Needs of Traders and Consumers (Case Study: Roving Pendulumel)

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### INFO ARTIKEL

### Abstract

#### Keywords:

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*Itinerant traders are traders who sell their wares by traveling around residential areas or villages on motorbikes, using baskets on their shoulders, or using carts. With the high rate of development of motorbikes in Indonesia, traveling traders use these motorbikes as a place to sell. According to observations made by the author, pentol in Surabaya is a food for all ages and is one of the popular foods, it has even entered malls, and is often found at food festivals or other events. With the increasingly rapid development of means of transportation, many pentol traders use motorbikes as a place to trade. However, there were also several difficulties experienced, such as the dimensions of the building being too large which made it difficult to mobilize and difficulties when it rained because there was no media to protect it from the rain. For this reason, there needs to be changes and improvements to existing sales facilities, so that traders of pentol, which is one of the most popular foods, can continue to survive and innovate to be better. The aim of this research is to design a stall selling pentol with motorbikes that can be mobilized to make it easier for traders to sell on the go or at food festivals. The research method used is a qualitative method in the form of In-Depth Interviews and Observations and also a quantitative method in the form of Questionnaires. The output of this research is rombong food products.*

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### Introduction

Itinerant traders are traders who sell their wares by going around in housing or villages. Itinerant merchants peddle their wares in various ways. Some are on

motorcycles, using baskets that are carried, or using carts. For example, bicycles, motorcycles, or cars (Adi, 2004). With the high number of motorcycle development in Indonesia, several businesses, especially traveling traders, use this motorcycle vehicle as a place to sell. The large availability and demand for motorcycles in Indonesia is because motorcycles are a means of transportation that has several advantages compared to cars, from relatively cheap prices, more efficient fuel consumption, to more affordable maintenance costs with the economy of the Indonesian people (Wuryantari, 2011). In Indonesia, motorcycles are widely used in several cities. The World Bank in 2005 reported that car ownership in Indonesia is approximately 16%, while motorcycles are 80% (Hsu and Lin, 2007).



Figure 1. Motor vehicle sales chart

Show from the term "bakso" comes from the words Bak and so in Hokkien which literally means "ground meat" (Indonesian Culinary, 2010) For this reason, there needs to be changes and improvements to existing sales facilities, so that pentol traders who are one of the most popular foods can continue to survive and innovate for the better. With the background of these problems, designers will design a means of selling mobile pentol that suit the needs of merchants and consumers of pentol.

### Study Literature

To find out the extent to which the above problems have been investigated by other researchers, a literature review of several papers and books of the latest literature related to the literature was conducted;

1. Pentol

Pentol is a type of snack that can be found anywhere. Pentol is a term for a type of meatball whose meat composition is less than meatballs. Sometimes it's even just starch, varied with tofu, dumplings, quail eggs, and dumplings. Pentol is served with a mixture of tomato sauce, soy sauce and peanut sauce (Paito, 2015). In other regions, such as West Java, pentol is also referred to as cilok. Pentol is considered a children's snack, but in Bangkalan pentol is the food of all ages. No wonder pentol sellers mushroomed everywhere, even entered the mall and did not lose their interest.

2. Pentol seller

Pentol sellers are found in every region, with various variants of pentol and trade marks or branding of each seller. Pentol or cilok / cilot is indeed a snack that is favored by children and adults though. The shape of the pentol is small like a pebble and large like a meatball pentol. How to sell pentol using a vest placed on a motorcycle to make it more mobile and portable and flexible (Paito, 2015). The main target of pentol sales is young children

from elementary school or kindergarten. It can be by traveling from village to village or from one school to another. With this way of trading, sellers are easier to mobilize in crowded places (Paito, 2015). There are several equipment that must be carried by toll traders when selling, including:

1. Motorcycle/ pedal bike  
To be able to sell around, traders need vehicles for transportation to make it easier to move places. Pentol traders most often use motorcycles and pedal bikes (Paito, 2015).
2. Rombong or pentol box  
Rombong is usually positioned at the back of a motorcycle vehicle, the vest is useful for storing all merchandise and other items needed to be carried when the merchant goes around (Paito, 2015).
3. Pentol holder pan  
The pot where the pentol is stored is made of stainless steel anti-rust. The pot has different sizes, distinguished by its diameter. The price also varies according to the existing size. Frequently used diameters are 32 cm, 35 cm, and 40 cm. Adjusted to the size of the space provided on the rombong (Paito, 2015).
4. Pentol and other complementary foods  
In one trip, pentol merchants not only bring pentol to sell but several other complements are also provided. Pentol traders generally carry more than one type of trade, namely:
  1. Pentol
  2. Know
  3. Siomay
  4. Quail eggs
  5. Gas stove with gas cylinder
  6. Supporting materials such as sauce holders, plastics, etc222

### **TREND FOOD FESTIVAL**

The world of festivals and events / fairs that present many visitors has developed along with changes in technology and lifestyle that affect the development of industry, one of which is the food industry. If previously a festival was about celebrating big days or always bringing famous music entertainment, nowadays people come to the festival for the benefit of being included in the lifestyle section, especially for urban communities. Food festivals no longer occur once a year, but have become weekend events that offer entertainment for urban communities. Food festival events have become trend-setters in the culinary world by taking iconic food groups and turning them into an extraordinary celebration. (Passy, 2012).

### **TREND FOOD CART**

The following are some types of food carts that are often used in a food festival.

- Traditional food cart  
Food cart is a type of traditional food cart that is widely used by hawkers to peddle their food merchandise. Food cart designs like this are very popular in Indonesia.
- Food cart without vehicle  
Food carts are commonly used inside festivals/bazaars. The food cart does not have a vehicle so it is a little difficult to move because it must be pushed manually or pulled by another vehicle.
- Kontemporer food cart

Food cart is a contemporary food cart design that highlights a simple and modern impression. More accentuate the branding and graphics of the products sold.

- Pop-up food cart  
Food cart is a food cart design that can be disassembled so that it is compact and does not take up much space. Widely used in thematic festivals because of its unique design.
- Canopy food cart  
Food cart is a food cart design that has a cover facility such as a canopy or paying to protect from hot weather. Most food carts that sell food have this canopy facility.
- Tricycle food cart  
Food cart is a food cart design that has 3 wheels to be moved. Tricycle food carts have the advantage of being easier to move and easy to get around so they don't stay in one place.
- Tricycle motor food cart  
Food cart is a food cart design that uses tricycle motor media to attract visitors because of its uniqueness. Food carts like this are very popular and can be found at every festival.
- Food cart with vehicle beside  
Food cart is a food cart design that is various types of vehicles that are located next to the cart so that it can move places easily.

**RESEARCH METHODS**

The research method used in this study is a qualitative method consisting of in-depth interviews, and questionnaires.

Research Scenarios

- a) Reseach objective
  - Collect qualitative data for rombong product development.
  - Compare with existing car products.
  - Identify consumer needs for products to be developed
- b) Reseach design
  - Qualitative: Observation, in depth Interview (IDI), behavioral studies.
  - Quantitative: questionnaire
- c) Reseach Area
  - Pentol sellers traveling around Trunojoyo Madura University (UTM).
- d) Reseach Target

Research involving participants is:

Pentol consumers	Cart maker	Pentol seller
War- war Age: 18 - 35 years old	Average Age: 25- 55 years old	Average Age : 22 - 45 years
Gender: Unisex	Gender: Unisex	Gender : Unisex

Sample Size

IDI : - Bambang (39th)

- Eko (32th)
- Andik (22th)
- Wahyu Kurniawan (29th)
- Arifin (43th)

Observations: - existing products, color studies, mechanism studies, activity studies, layout studies, anthropometric studies.

Research Period

- May – October 2015

From the results of processing the data obtained, a complete synthesis is obtained, as follows:

### **Overall Synthesis**

From the overall IDI, observations, and questionnaires carried out, several conclusions can be drawn:

- From interviews (IDI) conducted with 4 traveling toll traders, it is known that the operational obstacles faced by traders are vests that have large dimensions so they are difficult to move.
- Umbrellas are also needed to protect during the summer and rainy seasons, but the umbrellas used are inefficient, requiring a compact canopy with motorcycles and vests.
- From the results of interviews (IDI) that have been conducted on rombong makers, it is known that the material commonly used in making rombong is a combination of aluminum and fiberglass because it is lighter, and superior in terms of shape, color, and aesthetics.
- From the results of the 3rd interview (IDI) with the rombong maker, it can be concluded that the weight of the rombong is very influential on the mobility of traveling merchants. Vests placed on motorcycles will affect the mobility and operations of toll traders.
- The way sellers sell pentol is done unhygienically, it can be seen from the place and how traders store pentol in makeshift places. The way buyers take sauce is also unhygienic so a sauce holder design is needed that can minimize the unhygienic behavior.
- From the observations that have been made, it can be seen that traders who sell in malls and festivals offer more unique products and branding and prices that are more expensive than the average traveling toll merchant.
- From a questionnaire conducted on 50 respondents from the age of 12th - 59th, it can be seen that 94% of respondents answered that they would rather buy pentol if the pentol trader was more hygienic and modern, but still in the traditional way of getting around.

## **RESULT AND DISCOUSION**

### **Design Process**

After analyzing the data that has been collected, an analysis of design aspects related to the product made is carried out. Studies and analysis are carried out before compiling design concepts, Technical Aspects used in making this product are material, material composition, users, anthropometry, functions, production processes, safety, . As for the visual aspects are aspects of shape, color, aesthetics, geometric, unity, harmony, and form follow function design techniques. These aspects of design are the guidelines in making design alternatives.

The creative process starts with 7 initial design alternatives, then weighted into 3 final design alternatives and 3 model studies with a ratio of 1: 1, and reweighted so as to get the final design. The final design found was then made a prototype with a ratio of 1: 1. The prototype is made using hollow iron material and galvallum plate with 70% hollow iron and 30% galvallum plate.

### **SWOT Analysis**

This SWOT analysis refers more to things related to the advantages, weaknesses, opportunities, and threats of the product from various things that might harm or drop the position of the product.

#### **Strength**

- Products that facilitate traveling toll merchants to carry and display their wares.
- Ergonomic (comfortable, safe, according to the user's body size, and easy to operate). By product size: 80x40x170 cm.
- It is easy to carry by motorcyclists by using a hook system that can pull the vest.
- Compact because when stored it does not require much space.
- Make it easier for users to use the product because the layout of the storage area as well as the stove and boiler has been designed to be integrated with each other according to the demands of user activities.
- Using materials that are easily found on the market so that product maintenance (part replacement) is easier to do.

#### **Weakness**

- The product can only be used to carry snacks, especially pentol.
- Product quality is still unable to compete with similar products with a large industrial scale, especially in terms of product neatness.
- The production process of rombong products takes a long time because it is done manually.
- Not suitable for sport bikes because the seats are too tilted.
- Maintenance and cleaning of the product needs to be carried out periodically by the user (after using it around all day should be washed).

#### **Opportunity**

- The potential of product materials that can be obtained easily so as to facilitate the production process.
- The increase in the number of traveling traders is in line with the increase in the number of two-wheeled motorized vehicle users.
- An increase in the number of food festivals in the city of Bangkalan.

#### **Threat**

- The amount of competition with similar products from the scale of popularity is more famous.
- The emergence of competitors who can imitate the design and use of similar materials from this product.

### **STPD Analysis**

STPD analysis is carried out with the intention of identifying market needs and potential through consumer behavior, so that the products made later can be accepted and in accordance with the desired target. This analysis includes the stages of segmentation, target determination, placement, and product differentiation which are important guidelines in marketing strategies.

#### **Segmentation**

##### **Demographic**

- Primary : Mobile snack vendor Gender: Unisex  
Age : 18 – 50 years old

- Income : IDR 3,000,000 - IDR 8,000,000 per month
- Secondary : Snack franchise
- Business scale : Small to large, based on Law no. 20 of 2008, concerning micro, small and medium enterprises.
- Business age : 5 years
- Turnover : > Rp 10.000.000,- per month

### Psychographics

Social class: upper middle class to upper class (B+ to A)

1. People who have a pentol business who sell their wares using a vest, and by going around.
2. People who own pentol businesses sell their food using rombongs, and sell their food at food festivals.

### Geographic

Hotel Area : Bangkalan City

Class	Kategori	Earnings per month
A+	High-end	>Rp 8.000.000
A	Upscale	>Rp 6,000,000 - Rp 8,000,000
B+	Upper middle class	>Rp 4,000,000 - Rp 6,000,000
B	Kelas menengah	>Rp 700,000 - Rp 4,000,000
C+	Upper lower grade	>Rp 300,000 - Rp 700,000
C	Lower grade	<Rp 300.000

### Targeting

-	Demographic
1.	Primary : Itinerant and festival merchants Gender : Unisex
	Age : 25 – 40 years old
	Income : IDR 4,000,000 - IDR 6,000,000 per month
2.	Secondary : Pentol food franchise

Business scale : Small to large, based on Law no. 20 of 2008, concerning micro, small and medium enterprises.

Business age : 5 - 10 years

Turnover : IDR 10,000,000 – IDR 15,000,000 per month

- Psychographics

Social class: upper middle class (B+)

1. Mobile toll merchants who can use and drive motorcycles, already have a driver's license as a condition to drive two-wheeled vehicles.

2. Pentol traders who usually participate in food festivals at least every 6 months.

- Geographical

Location : Surabaya City, (Surabaya Utara, Barat )

Positioning

The positioning of the product that wants to be instilled in the minds of consumers is as an s that provides a means of selling snacks, especially pentol, with the advantage of being able to use motors of all types and using a hitch system to pull the rombong more easily.

### **Differentiation**

The difference between this product and other rombong products lies in the use of a hitch system (hook) to facilitate the operation of installing the toll car.

Marketing Mix (Product, Price, Place, and Promotion)

### **Product**

- Core benefit: The benefits offered to consumers are as special products in the field of vests that provide new design alternatives with modern styles.
- Basic product: The product made is a vest product that can be used to get around and emphasizes more on outdoor use.
- Expected product: This vest product is designed using a hook system so that it can be removed and installed easily. By having additional functions in the form of storage and display.
- Augmented product: This vest product will be equipped with an after sales service in the form of providing a warranty card (design in the attachment) as a guarantee if the product has damage or does not function properly not intentionally. Warranty repair or replacement of components includes replacement of product components with a period of 3 months after purchase.
- Potential product: The product will be developed in various forms that vary according to market demand and trends, with the intention of attracting consumer interest. Rombong products will be developed towards rombong for other foods, such as: rombong kebab, rombong kopi, rombong mini terang bulan, etc.

#### **a. Brand Naming**

The idea to be conveyed from the selected logo is to make a simple icon from a vest, to avoid overly complicated shapes the logo is made simple represented by the selection of basic shapes such as squares and circles. The shape is assembled to form a whole rombong which means a vest that is always moving to sell food, a color that looks like a sign on the road is yellow, yellow is chosen because yellow has an effect to stimulate vision and attract attention, so it is expected that the logo is easy to remember by consumers. Then in terms of font selection using fonts from simple and modern sans serif types following the brand concept that makes rombong with a modern design style.



**b. Branding Strategy**

Branding strategy emphasizes brand statements that have the purpose of the personality of the brand. Logo, brand colors, byline, tagline are included in the branding strategy. Visual identity product is a combination of everything that is a very important product identity. Here is the visual identity of the product that will be used on the product later.

**c. Pricing**

Cost plus pricing strategy

Is a sales strategy where product prices will later be determined by calculating production and non-production costs plus the expected profit. This pricing strategy is used to be able to determine the selling price of the product where the selling price can cover all costs and generate the desired return on investment. This strategy is chosen to get the appropriate price for the product without increasing or decreasing profit so that the price is in a range that can be reached by the target buyer. With the target buyers, namely mobile pentol food sellers and festivals, and also food sellers in franchises. Cost plus strategy is expected to reach these target buyers so that they can increase the selling power of the product.

**d. Place**

This product will later be sold and marketed through workshops / stores with its own showroom. Sales are also made Through online such as on social media (Instagram, Facebook, Etsy, etc.) and also through the official website. Online sales were chosen because the current sales trend leads to online sales, and also in order to reach consumers outside the region who cannot visit directly the existing workshop or showroom. As well as participating in local and national level exhibitions such as Jatim Expo, Surabaya Great Expo, Indonesia Food & Beverage Industry Expo, etc.

**e. Promotion**

Promotion is one of the marketing strategies aimed at introducing products to consumers as well as to increase product sales. The promotional strategy that will be applied to the product is to use various promotional media both ATL (Above The Line) and BTL (Below The Line) as follows:

- **ATL Media**

In this media, promotion is carried out by utilizing print media such as newspaper ads, which aims to introduce and make it easier for consumers to find out information about products. Such as: Jawa Pos newspaper, Kompas, and Sindo (design in attachment). The three newspapers were chosen for the reason of targeting owned by the newspaper in accordance with the intended promotional target by the brand. Here are the targets of selected newspapers as ATL promotional media:

**Java Post**

Target audience: middle class society and above, educated to undergraduate, age segmentation 16 – 40 years. It has +/- 1.4 million/day readers. It has main sections: politics, economy/business, national, international, metropolis, zetizen, for her. Chosen because Jawa Pos newspaper has the largest and widest readership compared to competitors, has an

economic/business section that is widely read by entrepreneurs so it is suitable for promoting brands.

**Compass**

Target audience: middle class society and above, undergraduates, segmentation aged 20 – 40 years. It has +/- 1.2 million/day readers. It has main sections, namely: politics & law, education & culture, environment & health, international, business & finance, binoculars (archipelago binoculars, etc.). Chosen because Kompas newspaper has a large readership, and has a business & finance section. Have a suitable target, namely from middle to upper.

**Sindo**

Target audience: middle class society and above, undergraduates, segmentation aged 18 – 40 years. Has readers +/- 336 thousand / day. Has a differentiation of male readers as much as 60% and female as much as 40% In accordance with the desired target, namely readers with middle to upper class.

- Media BTL  
Pada media ini, promosi dilakukan dengan menggunakan brosur, website, kartu nama, kartu garansidan x-banner.

**Cost Analysis**

Cost analysis for product manufacturing will be presented through material calculations (Bill of Materials) and detailed calculations of product costs both in the form of prototypes and when produced in large quantities.

No	Description of	Fees
	Production cost	23,902,000
	Indirect costs	14,312,500
	Total HPP	38.214.000
	COGS per product	4,776,750
	Selling price per product (20% profit + 1.5% tax)	5,803,750

Table 9. COGS Calculation

No	Description of	Fees
	Selling price	46,430,000
	Total HPP	(38.214.000)
	Tax 1.5%	(696,450)
	Net profit per 8 products	7,519,550
	Net profit per product	939,943

Table 10. Product Profit Calculation

Based on the results of the cost analysis that has been carried out, it is known that the selling price per product is Rp. 5,803,750, - with a net profit per product reaching Rp. 939,943, -

## CONCLUSION

From all the research that has been done to complete this final project, the following conclusions were obtained:

- It is known that the operational constraints faced by traders are vests that have large dimensions so that they are difficult to move so that they can be repaired with the help of material handling (wheeled).
- From observations that have been made, it can be seen that merchants who sell in malls and festivals offer more unique products and branding and prices that are more expensive than the average traveling toll merchant.
- From a questionnaire conducted on 50 respondents from the ages of 12 - 59, it can be seen that 94% of respondents answered that they would rather buy pentol if the pentol merchant was more hygienic and modern, but still in the traditional way of getting around.

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