

BALDAKO HEALTY (HERBAL COFFE LEAF) : PRACTICAL ECONOMICS AND ANTIOXIDANT ANTI- INFLAMANTORY DRINK INOVATION

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ABSTRACT

Indonesia is the fourth largest coffee producer in the world. Currently the only part of coffee that is widely used is the seeds, while kawa or coffee leaves are still considered waste by the community and are underutilized. Coffee leaves contain flavonoids, alkaloids, saponins, caffeine, and polyphenols. The phenolic acids contained in coffee leaves are antioxidant compounds that can function to eliminate free radicals in the body which are very beneficial for health. Based on these data, coffee leaves can be innovated into new breakthroughs, coffee leaves which are considered as waste are converted into useful products. Coffee leaves are processed into beverage products that are rich in anti-oxidants. This product is made by drying method then the leaves are torn or mashed and added with several selected spices such as ginger, lemongrass, cinnamon, cloves, nutmeg, rock sugar, honey, palm sugar and milk. BALDAKO HEALTHY has five flavors namely, coffee leaf with ginger and honey, coffee leaf with lemongrass and rock sugar, coffee leaf with cinnamon and palm sugar, coffee leaf with nutmeg and honey, and coffee leaf with cloves, rock sugar and milk. This drink is packaged in sachets at an economical price and easy to carry when traveling, the way of making it is also very practical, just brew it with warm water.

Keywords: Coffee Leaves, Practical, Antioxidant, Anti-inflammatory

1. INTRODUCTION

Indonesia is the fourth largest coffee producer in the world in terms of production of 648,000 tons. Coffee is a plant that grows a lot in Indonesia [13][28]. So far, the commercial use of coffee plants has only focused on processing coffee beans as brewing drinks and food additives [1][2]. Coffee plants are usually trimmed leaves so as not to interfere with the harvest. Coffee leaves are usually only disposed of as waste, not widely used as food or natural mixtures, so they need further utilization [3][4][5].

Based on the background of the problem, the authors innovate a product made from coffee leaves that are used as a substitute for tea leaves called "Kawa" because in addition to having a fairly high tannin content, coffee leaves also have a taste that is no less delicious than coffee beans [6][7][30]. Coffee leaves contain flavonoids, alkaloids, saponins, caffeine and polyphenols [8][27]. The phenolic acids contained in coffee leaves are antioxidant compounds that can function to eliminate free radicals in the body so that an antioxidant-antioxidant balance is achieved that can

regulate the function of the immune system in maintaining the integrity of lipid, cellular membrane functions [9][10][12]. proteins, nucleic acids and gene expression functions. can prevent cancer and various diseases [11][29] .

BALDAKO HEALTY is a coffee leaf that has been innovated into a new breakthrough which is processed into a beverage product rich in anti-oxidants [14][15]. This product is made using selected coffee leaves using the drying method then the leaves are torn or mashed and added with some spices. Fortification is the addition of an ingredient into a food product which is expected to improve the quality of the product [17][18][19]. The author adds several selected spices, namely ginger, lemongrass, cinnamon, cloves, nutmeg [20][22]. To give a sweet taste to BALDAKO HEALTY beverage products, the author uses natural sweeteners such as honey, palm sugar, rock sugar and milk to give a more delicious taste and also as a quality enhancer of the product [21][24]. This drink has five flavor variants, namely: the first flavor variant is coffee leaf with ginger and honey, the second flavor variant is coffee leaf with lemongrass and rock sugar, the third flavor variant is coffee leaf with cinnamon and are sugar, the third flavor variant is coffee leaf with cinnamon and are sugar. four coffee leaves with nutmeg and honey, and the fifth flavor variant with cloves, rock sugar and milk [25][26].

BALDAKO HEALTY is in powder form which is packaged in sachets to make it more practical to carry when traveling, the method of making it is also very practical by brewing it with water warm, no need to add sugar or other sweeteners because it is already mixed in the package, besides that the price of BALDAKO HELATY is also very affordable [16][23].

2. LITERATURE REVIEW

a. Product Development

Product development is a cross-disciplinary activity that requires contributions from almost all functions in the company, but the three functions that are always most important to a product development project are:

1. Marketing. The function of marketing is to bridge the interaction between the company and its customers. Another role is to facilitate the process of identifying product opportunities, defining market segments, and identifying customer needs. The marketing department also specifically designs communications between companies and customers, sets price targets and designs product launches and promotions.
2. Design (design). The design function plays an important role in defining the physical form of the product in order to meet customer needs. In this context, the task of the design department includes engineering design (mechanical, electrical, software, etc.) and industrial design (aesthetics, ergonomics, user interfaces).

3. Manufacturing. The manufacturing function is primarily responsible for designing and operating product systems in the product production process. These functions include purchasing, installation, and distribution.

The product development process according to Ulrich and Eppinger in their book entitled *Product Design and Development* consists of six phases, namely:

1. Phase 0: Product Planning
Planning activities are often referred to as “zero phases” because they precede project approval and the actual product development launch process.
2. Phase 1: Concept Development
In the concept development phase, the needs of the target market are identified, alternative product concepts are generated and evaluated, and one or more concepts are selected for further development and experimentation.
3. Phase 2: System Level Design
The system level design phase includes the definition of the product architecture and the description of the product into subsystems and components
4. Phase 3: Detailed Design
The detail design phase includes the complete specification of the shape, material, and tolerances of all unique components in the product and identification of all standard components purchased from suppliers.
5. Phase 4: Testing and Repair
The testing and improvement phase involves the construction and evaluation of various initial production versions of the product.
6. Phase 5: Initial Production
In the initial production phase, the product is made using the actual production system. The purpose of this initial production is to train the workforce in solving problems that arise in the actual production process. The transition from initial production to actual production is usually step by step. At some point in this transition, the product was launched and began to be made available for distribution.

b. Product Innovation

The definition of the notion of product innovation according to Hurley and Hult (1998) is a company mechanism to adapt in a dynamic environment. Therefore, companies are required to be able to create new thoughts, new ideas, and offer more innovative products, as well as improve services that satisfy customers.

Fontana mentions product innovations that include changes to wrap the product, build, improve the packaging of a product so that it is more innovative. Product size, innovative size diversity. Process innovation, changing or building production processes to be more efficient. Distribution
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system innovation, making distribution channels simpler. Management innovation, aims to make organizational management more flexible and agile in the face of changing organizational environmental conditions.

3. EXPERIMENTAL

a. Types of research

Descriptive method with a qualitative approach is the type of research used in this study. The purpose of this study is that researchers can describe the actual situation in accordance with reality, explore, and analyze more deeply related to product development strategies and product innovations from Kopi Leaf produced by the people of West Sumatra, especially the Padang Panjang area. Interviews, observations and documentation are qualitative approaches. obtained by the researcher.

b. Research focus

1. The Coffee Leaf product development strategy in West Sumatra, especially the Panjang land area
2. Product innovation strategy Coffee leaves which become herbal drinks that are rich in nutritional content that can nourish the body

c. Research Site

The Coffee Leaf located in West Sumatra is the research site used by researchers.

d. Data source

Primary and secondary data used by researchers. Primary data were obtained from interviews with coffee farmers in Panjang land and local residents, the Beverage Association, marketing agents, and the Department of Health and nutrition.

e. Data collection technique

Researchers in conducting research using observation, interviews, and documentation in data collection techniques.

f. Research Instruments

Recorders, field notes, interview guides, and researchers themselves are instruments used by researchers as a tool in collecting data.

g. Data analysis

Miles and Huberman interactive model used by researchers in data analysis. Data collection, data reduction, data display, and verifying are the stages of data analysis used by researchers.

h. Data Validity

Researchers used data validity techniques in the form of source triangulation. explains that source triangulation is used to test the credibility of the data by checking the data that has been obtained from several sources.

4. RESULTS AND DISCUSSION

1. Marketing

Sachet beverage products are often found on the shelves of spice products in large and small supermarkets. Baldako Healthy products can compete fiercely on premium shelves in several well-known supermarkets. In addition, Baldako Healthy products need to modify the market, namely the markets that have been served so far are modified, so that consumers feel more benefits when consuming Baldako Healthy than when consuming other sachet drinks. There are also ways to modify the market that can be done, including:

- a. Attract non-users to become users of Baldako Healthy products by increasing advertisements and promotions.
- b. Finding and entering new market segments. Baldako Healthy at least tries to enter the market segment that has not been entered by both the domestic and foreign markets.
- c. Seize consumers from competitors. Baldako Healthy can try to influence consumers of other herbal drink products to want to try and switch to consuming Baldako Healthy. In a market segment that is very sensitive to quality, it is absolutely necessary to develop product technology immediately.

In marketing analysis based on marketing mix theory, the following are found:

a. Products.

Baldako Healthy products are indeed inferior in design and packaging. However, consumers in the captive market recognize the superiority of the benefits of Baldako Healthy with various flavors, so that consumers can repurchase Baldako Sehat even though the packaging is less attractive.

b. Price

The emergence of Baldako Healthy begins with the issue of the efficacy of Baldako Healthy which contains spices and dried coffee leaves, so that the premium price formed really raises the image of the product. This can increase sales revenue especially at the retailer level, but not at the producer level.

c. Place

The sales point for Baldako Healthy is in exclusive outlets in the form of segments that are immediately recognized by retailers because almost all of Baldako Healthy is sold by direct selling. Some of them buy through selective Point of Sales because Baldako Healthy is in very limited supply.

d. Promotion

This Baldako Healthy promotion is carried out without using audio-visual advertisements. The promotion is only done using the WOM (Words of Mouth) method.

2. Design

This Baldako Healthy product is packaged in aluminum foil and wrapped in a thin green cardboard with the words “Baldako Healthy”. Making packaging designs that are more attractive is of course based on established marketing concepts, including:

- a. To attract customers must have a strong brand or an attractive logo. This can be done by offering products that are no less unique than competitors. In addition, it must also be able to realize products needed by customers, but added with a plus value, so that it can differentiate competitors' products. One way to create a unique product is to design an attractive product packaging. It's useless if you have a strong brand, but don't have a product packaging design that can make customers glance at it. With a unique and attractive product packaging design, the product will enter the stage for research to be purchased by customers.
- b. In addition to customer factors, product packaging design is also an important aspect in marketing. Therefore, companies must design product packaging as good, attractive, and unique as possible.
- c. Start designing product packaging in the product development process. Make a draft of some ideas to get a visual of the final result of a product, in the sense of having to imagine what the finished product will look like when it is finished.
- d. Keep It Simple is a motto that designers always use. By keeping the product packaging design simple, it will be profitable in the future. The thing to remember is that the product packaging design must present what it is supposed to serve. The product packaging design must contain details about the product being sold, then to provide applicable warnings. It is also useful to reduce costs in making product packaging designs.
- e. Market Positioning and Branding are two very important things in designing product packaging. By knowing the intended target market, including identifying customer expectations for a product, it will support the effectiveness of customer marketing. In addition, it is also necessary to observe competitors, because the product will become bigger just by studying the competitors' opponents.
- f. This product is also sold online, so it is a little different from selling it physically or at a brick and mortar store. Customers cannot touch and feel the product before buying, so the product

packaging design must appeal to other senses, whereas if the product is sold in a physical store, the product packaging design must be made much more attractive, because the product will be on supermarket shelves which of course are side by side with other products. . If the product packaging design is not attractive, then the product will fail.

3. Manufacturing

Currently, consumers are more comfortable with herbal drink products that are directly brewed. So we immediately launched Baldako Healthy products in dip packaging, so as to increase sales of Baldako Healthy products. Another thing that needs to be done by Baldako Healthy is to modify the product by adding aroma, so that consumers and the market are modified towards the next phase of the coffee leaf product cycle. In this way, Baldako Healthy can change its image from a health drink product to a fresh and healthy beverage product.

4. Product Strategy and Innovation

Innovation actually refers to an item, service, or idea that consumers perceive as something new. The idea may be old, but for consumers, the innovation is considered a new thing. An example is the 'herbal' product as it is currently being developed in the United States market. Innovations usually require sufficient time to spread widely across market segments and social systems. This is commonly referred to as the process of "diffusion," by Rogers defined as the process of spreading a new idea from the creator of the new idea to the consumer. This is somewhat different from the notion of the adoption process.

The adoption process is actually more directed to 'a mental process in which a consumer hears about the innovation,' so that adoption is a decision from consumers to establish themselves as consumers who will regularly consume the products offered. It seems that the three processes above (process, innovation, diffusion and adoption) on Baldako Healthy products run quite smoothly, so that in a short time Baldako Healthy can be developed and accepted by consumers.

In the process of adoption, Baldako Healthy products can be described through the following stages:

a. Awareness of Baldako Healthy

Products In this introduction phase, consumers become aware and recognize the existence of product innovations that are carried out, but still lack information about the existence of innovations or about these innovations. In this phase, Baldako Healthy was introduced by distributors, agents, and retailers (salesmen) through simple leaflets.

b. Interest (Interest) in Baldako Healthy

Products In this phase, consumers are stimulated to seek information about the innovations carried out by the company. Therefore, the company's action that must be taken immediately is to provide and provide information about the product innovations that he has done. At this time Baldako Healthy disseminates information through more detailed brochures about other herbal products.

c. Evaluation of Baldako Healthy

Products In this phase, consumers have started to consider whether they want to try the product that has undergone the innovation or not.

d. Trial of Baldako Healthy

Products In this phase, consumers try products that have undergone innovation with the aim of comparing their estimates with the value of the product.

e. Acceptance (Adoption) of Baldako Healthy

Products If it turns out that consumers find that the product innovations carried out exceed their expectations, then consumers will decide to use them fully and regularly to consume these products. This happened during the third year, when Baldako Healthy products were packaged in aluminum foil. Argues that consumers will accept the product that has been innovated and will buy if there is a significant difference between the total consumer value and the total consumer cost. In other words, there is a positive value of the total delivered value (total product value received by consumers). Among Baldako Healthy's efforts so that this product can be accepted by new consumers is by posting Baldako Healthy beverage products as drinks that are able to act as anti-oxidants, so as to prevent cancer as has been promoted by the United Nations (United Nations). At first, consumers can accept it. This is indicated by sales (sales) which continues to grow from time to time. However, it seems that domestic consumers are starting to feel bored because the taste and aroma of Baldako Healthy has not been developed further according to the flow of its life cycle. The "bored" feeling of these consumers is still balanced by the potential demand from customers who still don't often consume herbal drinks due to limited supply. This type of consumer causes sales of Baldako Healthy to be maintained.

5. CONCLUSION AND SUGGESTIONS

The development of the Daun Kopi product is growing with a cyclical trend, causing the Daun Kopi product to have a short sinusoidal PLC (Product Life Cycle) pattern, with an estimated time of 1-10 years depending on the level of consumer preference. However, if the process of product development and product innovation can be carried out "proactively" (ahead of its competitors), it is not impossible that the PLC (Product Life Cycle) of Baldako Healthy products will be "scalopped" (increase periodically).

Baldako Healthy has seen other market opportunities besides the domestic market, namely the international market in the United States because the trend of the lifestyle (lifestyle) of most Americans wants them to consume healthy natural ingredients. For this reason, PLU is advised to start serious product development and innovation if it wants to serve the global market where consumers are very "demanded".

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