

# **BUSINESS MODEL CANVAS DESIGN AND FINANCIAL ANALYSIS OF KOMBUCHA CASCARA KTH CIBULAO BUSINESS**

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**DEPARTMENT OF AGROINDUSTRIAL TECHNOLOGY  
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2024**

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## ABSTRAK

MICHELLIA CEMPAKA SARASWATY. Rancangan *Business Model Canvas* dan Analisis Finansial Bisnis *Kombucha Cascara* KTH Cibulao. Dibimbing oleh YANDRA ARKEMANI dan ELISA ANGGRAENI.

Kombucha cascara adalah minuman yang diproduksi dengan fermentasi seduhan teh manis cascara dengan SCOBY. Proyek desain ini ditujukan untuk mengembangkan bisnis skala kecil kombucha cascara yang telah diformulasikan pada proyek desain sebelumnya bersama mitra Kelompok Tani Hutan (KTH) Cibulao. Desain solusi yang dirancang adalah scale up produksi dengan kapasitas 828 botol kombucha per bulan yang akan ditargetkan kepada konsumen di daerah Jabodetabek dengan rentang usia 20-49 tahun. Produk dijual seharga Rp25.000 (margin 150.93% dari harga pokok produksi Rp9.963) kepada konsumen akhir dan Rp20.000 (margin 100.74%) kepada re-seller. Kombucha cascara CasTIN berukuran 250 ml diposisikan sebagai minuman penyegar bagi konsumen. Perancangan tata letak ruang produksi seluas 60,04 m<sup>2</sup> dilakukan dengan metode Corelap mempertimbangkan luas ruangan, allowance, penanganan bahan yang efisien, aliran proses produksi, dan aliran keluar masuk barang. Uji umur simpan menunjukkan produk baik dikonsumsi selama ±8 bulan (suhu penyimpanan 4-10°C) dan 5 hari (penyimpanan suhu ruang). Produk dikemas dengan kemasan kaca yang ditutup rapat agar tahan terhadap tekanan gas CO<sub>2</sub> hasil aktivitas fermentasi yang mungkin terjadi. Proses bisnis dimodelkan dengan BPMN melibatkan KTH Cibulao (pemasok cascara), CasTIN (produsen), dan konsumen. Hasil analisis kelayakan finansial menunjukkan usaha layak dijalankan dengan nilai kriteria NPV (Rp3.115.137.024) > total modal (Rp64.692.595), Net B/C 94.15, IRR 399%, Payback Period selama 11 bulan, ROI 430.79%, Break Even Point pada 172 botol atau pemasukan Rp1.725.884. Bagi hasil dari laba bersih per tahun akan disalurkan ke bisnis kombucha cascara CasTIN 85% dan ke Departemen Teknologi Industri Pertanian IPB University sebesar 15%.

**Kata kunci:** kombucha, *cascara*, *scale up*, umur simpan, proses bisnis

## ABSTRACT

MICHELLIA CEMPAKA SARASWATY. *Business Model Canvas Design and Financial Analysis of Kombucha Cascara from KTH Cibulao Business. Supervised by YANDRA ARKEMAN and ELISA ANGGRAENI.*

*Cascara kombucha is a beverage produced by fermenting sweet cascara with SCOBY. This design project aims to develop a small-scale cascara kombucha business that has been formulated in the previous design project with the Forest Farmer Group (KTH) Cibulao. The designed solution is to scale up the kombucha production to a capacity of 828 bottles of kombucha per month, targeting consumers in the Jabodetabek area aged 20-49 years old. The product is sold for IDR25.000 (margin 150.93% of the cost of production IDR9.963) to final consumers and IDR20.000 (margin 100.74%) to re-sellers. CastIN cascara kombucha 250 ml is positioned as a refreshing drink for consumers. The layout design for the production space of 60.04 m<sup>2</sup> is done using the Corelap method, considering production capacity, minimal costs, minimal land area, and production process flow. Shelflife testing indicates that the product is good for consumption for approximately 8 months (storage temperature 4-10°C) and 5 days (room temperature storage). The product is packaged in tightly sealed glass bottles to withstand the pressure of CO<sub>2</sub> gas resulting from fermentation activity that may still occur. The business process is modeled using BPMN involving KTH Cibulao as cascara supplier, CastIN as industry or manufacturer, and consumers. The results of the financial feasibility analysis show that the business is feasible to run with the criteria values of NPV (IDR3.115.137.024) > total capital (IDR64.692.595), Net B/C 94.15, IRR 399%, Payback Period of 11 months, ROI 430.79%, and BEP units at 172 bottles and BEP revenue of IDR1.725.884. The profit sharing from the annual net profit will be distributed to the cascara kombucha business CastIN 85% and to the Agroindustrial Technology Department of IPB University at 15%.*

**Keywords:** *cascara, kombucha, scale up, shelf life, business process*



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# **BUSINESS MODEL CANVAS DESIGN AND FINANCIAL ANALYSIS OF KOMBUCHA CASCARA KTH CIBULAO BUSINESS**

**MICHELLIA CEMPAKA SARASWATY**

Final report  
as one of the requirements for obtaining a degree  
Bachelor of Engineering in  
Agricultural Industrial Engineering Study Program

**DEPARTMENT OF AGROINDUSTRIAL TECHNOLOGY  
FACULTY OF AGRICULTURAL TECHNOLOGY  
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Thus this final assignment was created. The author realizes that this final assignment still requires constructive criticism and suggestions in improving it. Hopefully this final assignment will be useful for those in need and for the advancement of science.

Bogor, May 2024

*Michellia Cempaka Saraswaty*

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