Business model for community featured products in peatlands: case study of Pulang Pisau Regency

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Abstract. Peatlands are one of resources for regional economic development in Pulang Pisau Regency. However, the condition of peatlands continues to be degraded due to uncontrolled use and fires on peatlands and forests areas. The socio-economic revitalization of community is one of the efforts to restore the degraded peatlands. This revitalization is required as the utilization of peatland by the community is still traditional, so the added value of land use products, until now has not been created optimally. Therefore, a land-use business approach that is appropriate with the capacity of the community and available natural capital is needed. This approach will improve community livelihoods and contribute positively to economic, social, and environmental development. This paper aims to identify the features of paludiculture products cultivated by the community and develop a featured product business model. Research locations are in Buntoi and Mantaren 1 Village. Data collection is carried out through in-depth interviews and focus group discussions. Respondents are farmers, traders, industry players, and the government. The data analysis used is descriptive data analysis and canvas business model (CBM). The dominant type of plant cultivated by the community is rubber. The community considers rubber could provide high economic benefits. Analysis results of rubber business practices carried out by the community are characterized by (i) low dry content of rubber latex (slab); (ii) rubber latex that is sold to a local trader or factories at lower prices than it is sold to the factory, (iii) the certainty of the slab supply to the factory is relatively high; and (iv) limited control of capital and technology. The development of the CBM model is needed to improve the rubber business through improving the quality of latex as a market segmentation requirement, expanding potential customers through collective marketing channels, improving productivity by selecting superior seeds and environmental engineering technology.

1. Introduction
Peatland is one of the economic development capitals of Pulang Pisau Regency. However, peatland conditions continue to degrade as a result of uncontrolled utilization and forest and peatland fires. Therefore, the government has launched peatland restoration efforts with a target of 2.49 million hectares within five years, one of which is in Central Kalimantan Province. Peat restoration efforts are through three approaches, namely rewetting peatlands, restoration of land cover through the planting of native species in protected areas or with other types of plants that are adaptive and of economic value in the function of cultivation (revegetation); and revitalization of people's livelihoods [1]. Long-term peatland conservation limits communities to meet the needs of life in the short term [2] [2]. Therefore,
peatland should be seen from the environmental benefits (conservation) that provide economic benefits for local communities. Socio-economic revitalization of the community includes planting crops activities that have economic benefits for the surrounding community. The type of plants cultivated must be following the type of land and the capability of the community. So far, peatland utilization by the community is still traditional, so the added value of land use products has not been created optimally. Market access becomes a very strategic aspect. Marketing of the community's superior products plays an essential role because it can affect other sub-systems such as production and processing sub-systems. Efficient marketing can create added value and form a product distribution chain connecting farmers as producer with end consumers. The success of marketing aspects depends on the market structure at every level, bargaining position, and business efficiency of each actor. Revitalizing people's livelihoods should be appropriate for developing a superior product-based business model [2, 3]. With revitalization, communities are empowered to manage peatlands as cultivation sites, such as sago, pineapple, purun, and other paludiculture plants as well as freshwater fisheries.

In its development, the government has issued various regulations related to the utilization and management of peatlands following existing regulations of protected functions and cultivation functions. Peatlands that serve for cultivation can be developed a peatland business model that agrees with the environment's carrying capacity. Businesses in sustainable peatlands can be developed using an integrated approach between upstream (on-farm) and downstream (processing industry), known as the agribusiness approach. This paper aims to identify the superior products that the community strives for and to develop the business model of the superior product.

2. Research method
2.1 Research site
The research site is conducted on degraded peatlands in Pulang Pisau Regency, Central Kalimantan Province, by taking two villages around peatland, namely Buntoi Village and Mantaren 1 Village, Kahayan Hilir Subdistrict as a location of the research.

2.2 Data collection
The data used is secondary data and primary data. Secondary data is obtained from relevant data sources such as informations, files and other relevant data from the Ministry of Environment and Forestry, the Ministry of Agriculture, the Regional Forestry Services, the Food Security Services, and the Industry, Small and Medium Scale, and Cooperation Service. The primary data collection method is conducted with (1) field observation, (2) focus group discussion at the village and district level, and (3) in-depth interviews with relevant stakeholders.

2.3 Data analysis
This paper uses canvas business model framework developed by [4]. According to [5] the business model is a method companies use to make money in the business environment in which the company operates. While the business model, according to Geissdoerfer et al. (2018), is a representation of the elements of value proposition, creation and delivery of value, simplified value capture, and interactions between these elements within the organizational unit. [4] states that a business model describes an organization's rationale for creating, delivering, and capturing value. The business model designed by [4] is better known as the Canvas Business Model, which consists of "nine business model building blocks." These elements include Customer segments; Value co-creation; Channels; Customer relationships; Revenue streams; Key Resources; Key Activities; Key partners, Cost structure (Figure 1).
This business model canvas is the most widely used approach to formulating business models. A good business model will provide additional values to customers such as product information and understand the business model currently in the market and equipped with strategic analysis [6].

Business canvas model can be used as a tool to provide proposed design of new business models [7-10] or change the existing business model [11-16]. This approach could be combined with other analytical tools, such as SWOT, AHP, and combination of AHP and SWOT (AWOT), or Blue Ocean Strategy (BOS). Nevertheless, the approach used is the canvas business model only, because it is still in the draft proposal stage.

3. Results and discussion
3.1 Types of a community-leading commodity in peatlands

Land that is managed by the community in Buntoi and Mantaren 1 Village are generally cultivated by planting rubber and sengon. Other commodities grown by the community in peatlands are pineapple, rice, coffee, jelutung, vegetables, palm, acacia, belangiran, getai, kahui, pantong (such as rubber trees), cassava, cassava, lumbar, and rattan.

Rubber is a type of plant commodity that is cultivated for generations. The area of rubber plantations in Central Kalimantan after the 2015 fire remains around 446,600 hectares. In addition to being planted as the primary commodity, rubber is also planted with other crops intercropping for mixed garden patterns/agroforestry [17]. The selling price of rubber has fluctuated depending on the market price and the quality of rubber.

The average rubber production in Buntoi Village is 1,179 kg/ha/year, with a harvesting frequency of 86 times a year. At the same time, rubber production in Mantaren 1 Village is twice as high as in Buntoi Village about 2,606 kg/ha/year, with a harvesting frequency of 100 times a year (Table 1). The rubber productivity of Mantaren 1 Village is higher because the rubber plantations in this village are more in mineral land, while in Buntoi Village, there is more peatland. The price of rubber in Buntoi Village ranges from IDR 5,000,-/kg to IDR 10,000,-/kg, while in Mantaren 1 Village, the price ranges from IDR
6,000,-/kg to IDR 7,000,-/kg. Farmers’ income from rubber in Buntoi Village reached IDR 7,266,643/ha/year and Mantaren 1 Village reached IDR 16,896,750/ha/year.

Table 1. Revenue from rubber and rice commodities.

| Details                  | Unit       | Buntoi     | Mantaren 1 |
|--------------------------|------------|------------|------------|
| Rubber                   |            |            |            |
| Average production       | ha⁻¹year⁻¹ | 1,179      | 2,606      |
| Average price            | IDR kg⁻¹   | 6,428      | 6,333      |
| Harvest frequency        | year⁻¹     | 86         | 100        |
| Rubber revenue           | ha⁻¹year⁻¹ | 7,266,643  | 16,896,750 |
| Rice                     |            |            |            |
| Average production       | ha⁻¹year⁻¹ | -          | 1,044      |
| Average price            | IDR kg⁻¹   | -          | 6,000      |
| Harvest frequency        | year⁻¹     | -          | 1          |
| Rice revenue             | ha⁻¹year⁻¹ | -          | 6,206,000  |

People still practice their land with rubber and cassava in a mixed garden where the rubber is a staple plant. Cassava production in once harvesting time, could produce 50 kg, with a selling price of IDR 2,000/kg. If the frequency of cassava harvest is done twice a year, farmers get an additional income from cassava of IDR 200,000. Meanwhile, rice is usually planted in rice fields and widely planted in Mantaren 1 Village. The average production of rice/harvest/ha/year in peatland is about 1 ton. However, rice productivity is lower than the average rice production in peatlands, that is about 2 tons/ha/year. The productivity is still low because the rice seedlings planted are not superior varieties of rice seeds. Therefore, people usually plant rice seeds from rice crops set aside, although respondents also buy rice seeds from agricultural stores.

3.2 Potential commodity development in Buntoi and Mentaren 1 Villages

Types of plants cultivated by the community and the livelihood of Buntoi people are rubber, sengon, pineapple, and petai. People also grow fruit crops such as langsat, rambutan fruit, durian, jengkol, banana, guava, etc. People also collect forest products such as rattan and purun for webbing.

Types of local vegetation that exist or have existed in community gardens include rubber, sengon, jabon, aloe, palm, coconut, banana, durian, rambutan, cempedak, petai, and sungkai. While the types of vegetation in the forest of Mantaren 1 Village include belangiran, asam-asam, kapur naga, bantangur, tarantang, galam, tumpang, pantong, katiau, hanjalotong. In addition, tumih, galam, belangiran vegetation are found in conservation areas (Protected Forest). However, rubber farming is the main plantation in both locations.

Rubber is a plantation plant that has been cultivated and has a high economic value. In 2010 the community planted rubber almost simultaneously in the Pulpis area due to a seeding program from the Agriculture Department. In 2015, the area and production from a large state and private rubber plantation in Pulang Pisau district covering 38,342 ha with a production of 13,942.17 tons. Rubber plantations continued to grow until 2019, covering 41,291 ha, with a production of 2,967.64 tons (Central Kalimantan Regional Government, 2020). No exception Buntoi and Mantaren 1 farmers have long worked on rubber because it is considered profitable, although the price of rubber is relatively volatile. The average land ownership area is at least 2 ha/person.

Community rubber seedlings come from natural nurseries, nurseries at the Office of Agriculture, and nurseries from BPDAS located in Tumbang Nusa Village. Rubber in Buntoi and Mantaren 1 only begins to be tapped at ten years (due to local seed origin). One of the reasons for the small productivity of rubber plantations is that people still use natural seedlings of local rubber types (seedlings). There is no treatment of slinging and no rejuvenation of trees.
The process of harvesting rubber starts from tapping rubber. Rubber farmers conduct tapping by injuring the skin of rubber plants. After the latex is collected, an essential step in latex clumping is used using a clumping material (coagulant). There are still many farmers who use alum as a clump. However, KUBK members already use a type of "sintas", which has been fermented S3P10. This material is safer for humans. The following process is drying the sap for 10-15 days. Usually, people sell rubber in the form of latex. The product is a raw material crumb rubber factory that produces raw materials for various downstream industries such as tires, rubber shoes, and gloves.

Buntoi rubber farmers used to sell rubber to collectors or KUBK or KUPS Karet. Some Buntoi respondents (46%) processing (drying) on the Business Group of Rubber (KUBK) / the Business Group of Social Forestry (KUPS), and the rest directly sell wet rubber to collectors. At the same time, rubber farmers Mantaren Village 1 by 87% do not process the product but is directly sold to traders. Rubber will go through the drying process up to 60%-66% water content and be sold to rubber mills.

The rubber factory that is located in pulang pisau district is PT. BBA that is located in Gohong Village, Kahayan Hilir Subdistrict, and PT. KL in Garung Village, Kahayan Hilir Subdistrict. Chairman of KUBK or KUPS Karet Buntoi prefers to sell the products to PT. Borneo Makmur Lestari that is located on Tjilik Riwut road km 46-47, Palangkaraya, because it gets a higher rubber price of IDR 12,300/kg with a dry content of 64-66%. The company produces SIR/ Crumb Rubber 600-800 tons/month then export to China.

3.3 Current canvas business model of rubber products
According to [8], the benefit of using a canvas business model is that business can be done structurally. Besides that, business movement is faster because the stages in developing the business have been arranged, can put customers as the company’s primary target by providing the best value of the products offered. The business canvas model can be used as a final strategy to grow the business, including agricultural and plantation products businesses. Some studies have used BMC to analyze agricultural products such as agro pharmaceutical businesses in Cianjur [18], and berries products [9, 19]. The superior products of the community in peatlands in both villages are rubber, so the business model developed is the business model of rubber product canvas.

Further exposure and analysis will be focused on the development of rubber commodity farming. Rubber business will currently be included in nine key elements of the canvas business model consisting of: (1) Value Co-creation, (2) Customer Segments, (3) Customer Relationship, (4) Channels, (5) Key Resources, (6) Key Partners, (7) Key Activities, (8) Cost Structure, and (9) Revenue Streams.

1. Value co-creation
Today's creation of rubber value is still of origin, with a dry rubber content of about 65%.

2. Customer Segments
Farmers sell crops to several parties as marketer partners, collectors, and processing industries in marketing activities. Figure 2 shows the rubber marketing chain.

![Figure 2. Rubber commodity marketing chain](image-url)
The collectors come from within the village, which will be distributed for the needs of the village. There are also traders collectors at the sub-district level, even in Pulang Pisau or Kapuas. In addition, in some provincial-level collectors market products such as in Palangkaraya. Based on the results of the survey, it could be identified three rubber marketing channels origin at the study site, namely:

I : Farmer □ traders □ steamer village/district processing industry
II : Farmer □ traders □ steamer village/district KUB □ Processing Industry
III : Kub □ Farmers □ Processing Industry

3. Customer Relationships

The relationship conducted by farmers is to produce quality products with good harvesting, maintain good relations, and adjust to buyers' wishes if there are having complaints.

4. Channels

Conventional marketing channels are mostly to collectors within the village and outside the village, and a small part is sold by themselves by traveling around inside the village and neighbouring villages. The collector will sell to the processing industry in Palangkaraya, Banjarmasin, and Pulang Pisau district markets. The process of selling the community is still very dependent on the information submitted by the trader. Knowledge of the quality of rubber products becomes imperative in the pricing of the rubber produced. In obtaining information on the price of commodities to be sold, farmers are guided by traders. While determining the difference or margin of the selling price of commodities, farmers are guided by operational costs. There is no negotiation process in price negotiations with buyers in negotiating quantity, quality, price, time, delivery, and payment method because they have believes in merchants who have long been cooperated.

5. Key Resources

Key resources are the main assets that farmers need to have for farming to be optimal. The following are the assets that farmers need to have:

- Availability of suitable agroclimatic land. The land used by farmers is peatland, another area of use (APL) with the status of own land ownership.
- Seed. Seeds used to include local varieties or derived from government division (BPDAS)
- Fertilizer (organic and chemical). Fertilizers used are Urea, NPK ordinary, NPK Pearl, KCl, Calcium, SP36, ZA, Ponska. In addition to chemical fertilizers, some also use drum fertilizer and organic fertilizer (granola). Moreover, to overcome acidity, they add dolomite. Additional fertilizers commonly used are double-leaf fertilizer D and fruit fertilizer that is gandasil. The price of fertilizer is not subsidized.
- Insecticide or herbicide. The insecticidal drugs used are diverse.
- Agricultural equipment used such as hand sprayers, shovel hoes, sickles/machetes, carts/transports, baskets.
- Transportation. Motorcycles are vehicles that are used as a means of transportation to the garden and also bring crops.
- Workforce. The widely used labour is the labour in the family. The wages of workers ranging from IDR 100,000.00 - IDR 150,000.00.

6. Key Activities

Key activities carried out can be seen in Table 2 in land preparation, planting, fertilization, weeding, pest control of crop diseases (HPT), and harvesting. Farmers conduct no post-harvest activity.

| Table 2. Key rubber farming activities |
|---------------------------------------|
| **Stages of Activity** | **Farmer** | **KUBK** |
| a. Production cost planning (labour and inputs) | Preparation of labour to perform garden maintenance, torch tools, and rubber bowls | Storage/warehouse maintenance |
| b. Planning and marketing strategy | Farmers make no special effort | Farmers make no special effort |
In addition to the effort in selling rubber, farmers tend to choose buyers at higher prices. There is a separation of the quality of rubber people separated based on dry levels. Grading based on dry content.

c. Grading/Standardization of Inputs
Rubber quality is original
There is a separation of the quality of rubber people separated based on dry levels.

d. Product Processing with Technology Application
No special processing
Drying 10-15 days so that it reaches the dry rubber level according to factory demand.

e. Grading/Standardization of Processed Products
Grading based on dry content.

f. Packaging
No packaging
No special packaging

g. Brand Labelling
Not available
Not available

h. Product Pricing
The buyer determines to price
KUBK

i. Storage
At home
Drying warehouse

j. Transportation & Distribution
Taken at home
Delivered to the Warehouse by farmers

k. Marketing/promotion
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7. Key Partners
Key partners in rubber farming are:
- Providers of seeds, fertilizers, medicines, and equipments. Most of the needs are from the agricultural shop in Pulang Pisau district. However, manure available in the village and outside the village is still within the scope of the sub-district.
- Farmer Group / KUBK. The farmer group is a forum for farmers to meet in sharing information and discussing.
- Collector traders and the processing industry.

8. Cost Structure
The cost structure in rubber farming can be seen at production facilities such as seedlings, fertilizers, medicines, and transportation when harvesting and will be distributed to further marketing channels. The rubber production period begins in the fifth year. However, average production at the new study site can be achieved by the plant ages to 10 years. This production level occurs as a result of land suitability for rubber that needs a mineralization process first.

9. Revenue Streams
The income earned from rubber farming began to be obtained in the 5th year. Assuming that the rubber production rate is 300 kg/ha/month and the rubber price is IDR 6,500 per kg, the average annual revenue for both study is IDR 11,700,000,- in the 5th and 6th years; while starting the 7th year of farmers' receipts amounted to IDR 23,400,000,- per year.

In summary, the current conditions based on BMC points can be seen in Figure 3.
Key resources
1. Skilled workforce
2. Financial capital and assets (including land)
3. Harvesting equipment and post-harvest
4. Transport for distribution (motor/car)

Channels
Direct sales to collectors and individuals are not collective

Cost structure
1. Cultivation costs (planting, maintenance, harvesting, post-harvest)
2. Capital costs (principal installments and interest costs)
3. Distribution costs

Revenue stream
Sale of rubber origin

Figure 3. BMC existing rubber commodity (upstream)

3.4. Development of canvas business model for rubber
Rubber productivity in peatlands is still low due to technical production problems such as land fit and the type of rubber seeds used. However, when it is viewed from the chemical properties of peat soil, rubber plants can be cultivated in the land. The main problems in developing rubber plants in peatlands are drainage, soil pH, and root support to the header. In peatlands, the water level is generally too high to inhibit the development of roots that significantly affect the growth of plants in general. Rubber plants have the rooting of the riding so that it needs a deeper solum. Making drainage to lower groundwater levels is a high cost. The making of mounds is often unsuccessful because the soil will return down as the compaction process progresses. The making of trenches is necessary to drain the water so that the height of the surface water decreases and avoids stagnant roots. If the roots are inundated in more than three days/week, it can be ensured that plants will stress or even death, especially in young plants.

Soil acidity is also an obstacle in the cultivation of rubber plants. Peat soil is usually sour or very sour, so rubber growth is hampered or more severely intoxicated (toxicity). The provision of lime which is usually a solution to increase the pH is considered too large because the pH of the soil is very sour. In addition, rubber plants are less resistant to very acidic soil because usually in the assembly of clones tested in mineral soils. In terms of the selection of clones, it can use clones that are relatively suitable for land with high water surface (50-100 cm from the ground level) or low-lying areas that are often inundated during rainy days, such as BPM 24, BPM 1, PB 340, PB 217, IRR 104, IRR 5, and IRR 112.

Thus, the development of rubber in peatland requires environmental engineering to obtain a high land fit, and this has implications on investment costs that are not small. Drainage repair conditions cause peat soil to weather relatively quick. The current condition of rubber seems that no one grows tilted, let alone fell [20]; wind speeds also support it at locations not extreme. Despite the extreme winds, it appears that only a few rubber branches have broken.

Table 3. The current condition of the community rubber business.

| Cultivation | Institutional |
|-------------|--------------|
| • Availability of quality seed sources |
| • Expensive production inputs—e.g., environmental engineering |
| • Productivity is still low |
| • Land treatment – takes ten years for regular production |
| • Land fire threat |
| • Financial institutions |
| Bank |
| Cooperatives Save Borrow |
| BPDLH |
| • Easy access for some respondents who use the financial institution |
| • The loan is used to buy fertilizer and seeds |
Swampland for rubber development generally has a relatively low land suitability class compared to dry land that generally has a class of land suitability S1 (very suitable) for rubber plants [20]. Peatland management for rubber plants seems good enough to continue through drainage improvements so that the constraints of very shallow root zones can be improved. The sewer is created about a year before its planting with a channel depth of < 1 m. The ignition channel (kemalir) is made relatively rare, with a depth of < 0.5 m. Once the rubber plant is ready to tap, the ignition channel's depth can be lowered from 1.2 to 1.5 m. This is to provide opportunities for roots to grow freely and at the same time reduce the risk of fire. With a groundwater level of 1.5 m in peatland 2 m thick, rubber plants can still grow well. In addition, drainage repair can also be done by manufacturing drainage channels that can also be used soil mound systems.

The planting system by making surjan on young rubber in peat soil will cut lateral rooting, but the roots can grow again and follow the vertical angle down from the surjan shape. Management and repair of drainage channels and planting systems, then tidal swampland can be developed for rubber plants. The middle management level is sufficient to improve the characteristics/quality of land that becomes an inhibitory factor.

In detail, the improvement of the business model of canvas rubber products of the community is as it follows:

1. Value co-creations

The creation of rubber value cultivated by farmers on peatlands in Pulang Pisau Regency, Central Kalimantan, produces quality rubber according to market demand (processing industry), both in shape, size, and color at competitive prices.

2. Customer segments (segmentasi pelanggan)

Farmers can segment customers, which is a strategy in distinguishing customers into specific groups based on the quality of rubber needed. This strategy can maximize sales potential because knowledge of the quality of rubber requested by the industry can help farmers meet the demand.

This is in line with the results of a study on latex clumping business in Samarinda mentions that the appropriate customer relationship is a community (communities). Selection of communities or groups as customer relationships based on the value chain of the rubber industry, ranging from rubber farmers, latex suppliers, and rubber processing industries that are interconnected with each other based on the quality of rubber and processed products expected [21].

3. Customer relationships

To maintain customer loyalty, farmers must establish relationships with customers. So, customer relationships are the development of relationships with customers through various activities, communication, or certain services to customers. Some activities or services that farmers need to do to maintain loyalty or get customers:

- Ensure the quality and continuity of rubber products according to customer's demands.
- The existence of a written contract or commitment of both parties.
- Ease of payment methods (cash and non-cash) and delivery of goods.
- Good communication and follow-up if there is a complaint.
- After-sales service in the form of product delivery to the processing industry.

4. Channels
Channel is a medium for farmers to convey the value of co-creations owned to customers. The goal is for farmers to increase their potential customers. Here is a medium that farmers can use to convey value co-creation. Conventional channels include collective marketing channels through farmer groups (Poktan), Gapoktan, KUBK, KUPS, or cooperatives.

5. Key Resources
Key resources are the main assets that farmers need to have in ensuring their business activities can run well. Here are the key resources farmers need to have:
- Skilled workforce.
- Financial capital and assets (including land).
- Harvest equipment.
- Seedlings/ seeds excel.
- Fertilizers and medicines.
- Equipment for rattan cultivation (breeding, maintenance, harvesting, and post-harvest).
- Transport for distribution.
- Infrastructure is digital information technology.
- Supporting facilities for telecommunications and transportation.

6. Key Activities
Several key activities are needed for farmers to have high rubber productivity of farmers. Here are the key activities that farmers must do for rubber cultivation to run well. The key activities in rubber farming are:
- Seed and seed preparation (using superior seedlings)
- Land preparation
- Planting and Maintenance

7. Key Partners
Key partners of rubber farmers are parties such as ministries/institutions/institutions or individuals who can help farmers, especially those related to cost savings/efficiency, in doing business. The following are the key partners that farmers need to establish in carrying out their activities:
- Regency/Provincial Government
- Ministry of Institutions (such as KLHK, Ministry of Agriculture, Ministry of MSMEs, and Cooperatives, Ministry of Trade, Directorate General of Customs, and Customs.)
- Supplier of seeds and fertilizers
- Equipment suppliers
- Extension
- KUBK/Farmer group/Farmers Group Union
- Cooperation
- BUMDes
- Insurance
- Financing Institutions
- Transportation/distribution service providers
- Merchant
- NGO/NGO/Donor (API Care Group)
- Academics/research institutes

4. Conclusion
Based on the area of plantation, the dominant type of plant cultivated by the community at the study site is rubber. People choose rubber commodities because they are easy to cultivate and provide higher
economic benefits than other commodities. However, the productivity of rubber cultivation in peatland is relatively low due to technical production problems such as land suitability and local rubber seed types used. The results of the analysis of rubber business practices conducted by the community today are characterized by (i) low quality of rubber due to high water content; (ii) rubber that is sold to collectors or rubber mills are at a price lower than the factory price, (iii) the certainty of rubber supply to the plant is relatively high; and (iv) limited mastery of capital and technology. Based on the business canvas model, current community rubber business practices still require improvement and development. The rubber business of community is needed to improve through improving rubber quality based on market segmentation, expanding potential customers through collective marketing channels, improving productivity with superior seed selection, and environmental engineering technology.

References
[1] Wardhana, B. 2016 BRG’s Roadmap for Peatland Restoration CBD & FAO Workshop: “Forest Ecosystem Restoration” Bangkok, 27 June 2016.
[2] Giesen, W. 2015 Utilising non-timber forest products to conserve Indonesia’s peat swamp forests and reduce carbon emissions Journal of Indonesian Natural History;3(2).
[3] Purnomo, Hand Puspitaloka, D. 2020 Pembelajaran Pencegahan Kebakaran dan Restorasi Gambut Berbasis Masyarakat CIFOR.
[4] Osterwalder, Aand Pigneur, Y. 2010 Business Model Generation Hoboken, NJ: John Wiley & Sons.
[5] Wheelen, TLand Hunger, JD. 2012 Strategic Management and Business Policy. Toward global sustainability Pearson Education, Inc, publishing as Prentice Hall.
[6] Lelea, MA, Roba, GM, Christinck, Aand Kaufmann, B. 2014 Methodologies For Stakeholder Analysis For Application In Transdisciplinary Research Projects Focusing On Actors In Food Supply Chains German Institute for Tropical and Subtropical Agriculture (DITSL) Witzenhausen, Germany.
[7] Permadi, B, Nurmalina, Rand Kirbrandoko. 2016 Analisis Pengembangan Model Bisnis Canvas CV Kandura Keramik Bandung Jurnal Aplikasi Manajemen (JAM);14(1).
[8] Umar, A, Sasongko, AH, Aguzman and Sugiharto. 2018 Business Model Canvas As A Solution For Competing Strategy Of Small Business In Indonesia 22.
[9] Adhitya, Dand Eka, M. 2016 Analisis Model Bisnis Pada Bisnis Sepatu Guten.Inc Menggunakan Model Bisnis Canvas Jurnal Sosioteknologi;15(3).
[10] Rukka, RM, Busthanul, Nand Fatonny, N. 2018 Strategi Pengembangan Bisnis Keripik Bayam dengan Pendekatan Business Model Canvas,“ Jurnal Sosial Ekonomi Pertanian;14.
[11] Dewantoro, AK, Tricahyono, Dand Romadhon, H. 2017 Evaluasi Model Bisnis Pada CV. Spirit Wira Utama Dengan Pendekatan Business Model Canvas e-Proceeding of Management 4(2).
[12] Noer, M, Saribanon, Nand Nurwulandari, A. 2017 Business Model Analysis of Natural Production Forest with Sustainable Forest Management Approach GEOGRAFIA OnlineTM Malaysia Journal of Society and Space 13(1).
[13] Kurniasari, Rand Kartikasari, D. 2018 Penerapan Model Bisnis Canvas Terhadap Bisnis Jasa Angkut Penumpang Pada PT Internasional Golden Shipping JOURNAL OF APPLIED MANAGERIAL ACCOUNTING 2(1).
[14] Prasetyo, BB, Baga, LMand Yuliati, LN. 2018 Strategi Pengembangan Bisnis Rhythm of Empowerment Dengan Pendekatan Model Bisnis Canvas Jurnal Aplikasi Bisnis dan Manajemen.
[15] Anas, N, Beik, ISand Tanjung, H. 2015 Model Bisnis Canvas Layanan Haji Pt Bank Syariah X Cabang Cibinong Jurnal Aplikasi Bisnis dan Manajemen;1(2).
[16] Krisnawan, KA and Pradana, BI. 2018 Analisis Business Model Canvas pada Atabali dengan Menggunakan Pendekatan Kerangka Kerja Empat Langkah Blue Ocean Strategy Fakultas Ekonomi dan Bisnis, Universitas Brawijaya.
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