

RADICAL INNOVATION FOR EVALUATION OF EFISHERY FRESH BUSINESS MODELS

Muhammad Dwi Hary Sandy^{1*}, Lukman Abdurrahman², Hanif Fakhurroja³

^{1,2,3}Information System Study Program, Telkom University Bandung, Indonesia

Email: muhammaddwiharrysandy@gmail.com, abdral@telkomuniversity.ac.id,
haniff@telkomuniversity.ac.id

*Corresponding author: muhammaddwiharrysandy@gmail.com

Abstract— Indonesia is a maritime country with abundant fisheries resource potential. However, fish farmers often face challenges in terms of profit margins and marketing of catches. The eFishery startup is trying to overcome this problem through the eFishery Fresh fish sales platform. This research aims to evaluate eFishery Fresh's business model and design radical innovations to improve its competitiveness. This research uses a simplified design thinking approach in the form of RSM (Recognize, Scrutinize, and Materialize) design stages. The analysis was conducted using Lean Canvas analysis, customer profiles, questionnaires, and interviews with fish farmers. Proposed innovations include improved customer interfaces, value propositions, infrastructure, and cost structures. The designed business model focuses on customer-centricity, coordinated sales, revenue models with funds and margins, addressing farmer challenges, and social campaigns. In conclusion, the new model is in line with addressing issues such as low profit margins for farmers and the challenges of independent selling. This model also emphasizes the need for collaboration in sales management. Thus, eFishery Fresh's business model innovation has the potential to help improve its competitiveness.

Keywords: eFishery Fresh, radical innovation, RSM model.

Introduction

Indonesia is a maritime country with a sea area of 5.8 million *km*² with a number of islands ± 17,504 and a coastline of 95,000 km, the second longest in the world which has various types of fish in its sea waters. Based on studies, the potential for national fish resources reaches 65 million tons/year with details of fishing of 7.4 million tons/year and cultivation of 57.6 million tons/year (Marroli, 2016).

Fish is a food ingredient that has high protein compared to other animal proteins with abundant cultivation results and fish is one of the many animal proteins that has the largest protein consumption in Indonesia at 13.59% of the total 25.79%. Consumption of animal protein in Indonesia (Hakiki, 2019).

The fish consumed is obtained by catching fish in the sea. Apart from that, it can also be obtained by cultivating fish in ponds or ponds. If you want to get fish with maximum results, you can do this by cultivating fish because this method is more effective and efficient compared to catching fish directly in the sea. But it is very unfortunate that recently fish farmers and fish cultivators have experienced a decline in the exchange rate, especially for fish cultivators. The exchange rate here is the ratio between the price index received and the price index paid which is expressed in percentage form.

It can be seen in Figure 1 that NTPi in April 2020 decreased by 1.64% to 99.02. Where it can be seen that NTPi in April 2020 was at a critical point. In theory, when the NTPi value is <100, the fish farmer is in a critical condition. This is because their income (It) is much smaller than their expenses (Ib), either for household needs or production costs. Because currently the absorption capacity of fish farmers' production is unstable, causing fish farmers' income to decline. To overcome the problems faced by fish farmers, a solution emerged from the eFishery startup, namely eFisheryFresh.

NTP Subsektor	Mar'20	Apr'20	Perubahan (%)
Tanaman Pangan (NTPP)	102,41	100,93	↓ -1,45
Hortikultura (NTPH)	103,50	102,28	↓ -1,18
Tanaman Perkebunan Rakyat (NTPR)	103,39	100,82	↓ -2,48
Peternakan (NTPT)	98,12	96,40	↓ -1,76
Perikanan (NTNP)	100,30	98,70	↓ -1,59
✓ Nelayan (NTN)	100,05	98,49	↓ -1,56
✓ Pembudidaya Ikan (NTPi)	100,67	99,02	↓ -1,64
NTP	102,09	100,32	↓ -1,73

Figure 1. Development of Farmers' Exchange Rates March 2020 - April 2020

(Source: <https://www.bps.go.id>).

Efishery Fresh is a fish sales platform that utilizes harvest prediction data in each cultivation pond and connects directly to final buyers through digital transactions. Where eFishery Fresh sells fish from fish farmers who use equipment from eFishery Feeder. eFishery started its business from applications and IoT that help farmers to feed more efficiently, which is now called eFishery Feeder. With this application and IoT, eFishery can get various kinds of data from the farmers. This technology has been implemented and used in thousands of ponds and by hundreds of fish farmer groups in 22 provinces throughout Indonesia. This data is used Figure 1 Development of Farmers' Exchange Rates March 2020 - April 2020 to build harvest estimates and sell them directly to final buyers. In this way, the quality of the fish used by eFishery Fresh

is guaranteed because at eFishery Fresh fish growth is monitored through data obtained from the eFishery Feeder tool.

Starting from upstream, eFishery provides the eFishery Feeder business, where this feeder is an automatic fish feeding tool, making it easier for farmers to monitor and schedule feeding which can be managed using an application on a smartphone. This feeder sales system is unique because feeders are rented monthly. So farmers only need to pay the feeder rental fee per month, so this sales system is more pocket friendly for fish farmers. Then eFishery also sells fish food at low prices because eFishery has collaborated with several fish food brands. For fish farmers who cannot afford the cost of renting feeders and fish food, eFishery has an eFishery Fund business which functions to help provide fish farmers with capital for the cost of renting feeders and fish food, then the fish farmers will pay the money in installments every month to pay off their debts. the. Fish cultivators who use eFishery Feeder can make an agreement with eFishery so that the fish cultivator's production is purchased by eFishery and then distributed properly so that it reaches the hands of fish consumers. Therefore, eFishery has an eFishery Fresh business where eFishery Fresh is a fish sales platform that utilizes harvest prediction data in each cultivation pond and connects directly to the final buyer through digital transactions. This business unit has more potential to develop because currently the government is intensively promoting the fish-eating movement to increase the amount of fish consumed annually. Apart from that, it only focuses on individual customer segments because eFishery Fresh does not provide more information about its business customer segments because eFishery Fresh really protects its business customer information.

In the individual customer segment, the profits obtained from sales of eFisheryFresh products are still relatively small at 40% compared to the business customer segment which has sales of 60%, even though eFishery Fresh has sold its products via e-commerce to facilitate the purchasing process. Apart from that, based on the results of an interview with the CEO of Office eFishery, 15% of repeat customers make repeat purchases of eFisheryFresh products. Where, there are not many regular customers for eFishery Fresh due to problems during delivery. Because the products sold by eFishery Fresh are frozen food, so if the delivery journey takes a long time, the previously frozen product will thaw and cause the fish to not be fresh. This is an obstacle that makes customers reconsider when purchasing products from eFisheryFresh. Apart from that, the types of fish sold by eFishery Fresh are not as numerous as its competitors [3].

Therefore, from the problems described above, it can be concluded that eFishery in the eFishery Fresh business has challenges that must be faced to overcome these problems. Especially in competing in the fishing industry in Indonesia, so that eFishery can maintain the existence of the eFishery Fresh business and be able to compete with its competitors. In facing the challenges faced by eFishery Fresh and maintaining the existence of the eFishery Fresh business, it is necessary to design a business model and proposed strategy that suits the current conditions and is appropriate for the company. So, the company has high competitiveness and can reduce the obstacles it has. To do this, it is necessary to innovate according to the current

needs of customers and cultivators which will be summarized using simplified design thinking in the form of RSM design stages. Based on this background description, the eFishery Fresh business needs to evaluate its business model so that it can compete in the fish sales industry in Indonesia so that it is hoped that it can help the eFishery business run its business better. Therefore, this research will discuss the problem of eFishery startups entitled "Radical Innovation From Evaluation Of Efishery Fresh Business Models".

2 RELATED WORKS

Innovation is often associated with organizational structures and processes but it is often characterized by evolutionary traits, total change may require significant reallocation of resources or technology and thus towards the radical end of the new spectrum [4]. An unfortunate consequence of the discussion in the gift related to the view that undervalue the social significance in contemporary society as appreciation and reward, although some gifts match the logic of exchange, the others are incompatible, including the most common and contemporary forms of tenderness [5]. In addition, people depend on the exchange of deferred gifts, which operate in a very different way from the market but still carry out an equal economic trade function. Open source shows the possibility of highly edited digital tenders, but also shows that every digital tender is not very advanced [6].

Therefore, there are several categorization of innovation type namely incremental, responsive, disruptive and radical, in which the latter can be defined to be breakthrough implication toward the market response either utilizing the networking as the medium to optimize high return or exploring the opportunity primarily in the financial sector such as funding, sourcing, gift, reward, incentive and so on, although it required highest risk among the other toward organizational status [7, 8].

In addition, radical innovation is a new function or technique that has not been identified before, which shows a paradigm shift or creates new concepts in opposite directions, such as the discovery of wheels, transistors, microprocessors, etc. System innovations such as radical innovation. But that is achieved by using a combination of current technologies to produce new ones that were not seen before on the market or network. To understand the innovation strategy that economists must adopt, it is important to understand key user perceptions of innovation, such as professional work, lifestyle, organizational culture and corporate environment [9].

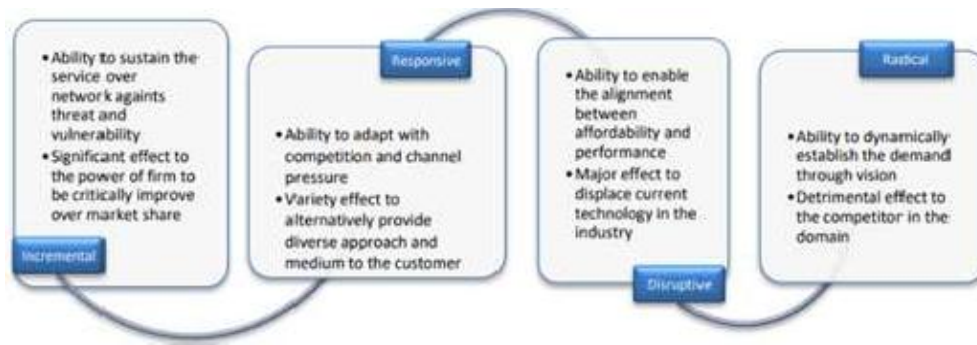


Figure 2. Implication of Innovation Type to the Product Service.

It is also essential to have insight in the complexities of the process and the border conditions to develop radical innovations within the organization such as the invention of air conditioners, integrated circuit, microprocessor, pacemaker, personal computer, strobe light, DNA fingerprint, FM radio, gyrocompass and much more that was come from small medium enterprises (SMEs) [8-10].

Therefore, the ability to dynamically establish the demand through vision of future utilization of certain product or service should be owned by respectable organization in order to develop radical innovation. It take long term investment that usually 10 years or more through iterative, setback and high level of uncertainty, which the ideas often pop-up unexpectedly and from unexpected sources while the focus and purpose might change over the course of development [10, 11].

Meanwhile, there are many type of perspective that can be defined to characterize to form the radical innovation such S-Curves, Hedonic Price Models, Expert Panels, Patent Measures and Dahlin-Behren by initiating the concept into practical and conceptual problem such as product characteristics, accessible data, service impacts, function of firm status and innovation structure [11].

The following is an explanation of eFisheryFresh's current business model obtained from an interview with one of eFishery Fresh's employees:

a. Customer Segments

Based on the results of interviews conducted previously, the customer segments of eFishery Fresh are individual customers and business customers. Individual customers are buyers of fish on eFisheryFresh for personal consumption, where this segment is aimed at housewives and people who have a hobby of cooking. Meanwhile, business customers are uyers of fish at eFisheryFresh to be processed and then resold, this segment is aimed at the HORECA (Hotel, Restaurant, Café).

b. Value Proposition

The value offered by eFisheryFresh is that the products have the best quality. eFisheryFresh prioritizes its products with the best quality because those provided by eFisheryFresh are obtained from cultivation results whose processes have been monitored by eFisheryFresh through data from fish farmers. This data is obtained through the eFisheryFresh smart feeder tool used by fish farmers to feed fish effectively. So, the fish produced by farmers will have the best quality.

c. Channels

The channels used by eFishery Fresh to convey the value it offers are through social media, websites and e-commerce.

d. Customer Relationships

Customer Relationship is how eFishery Fresh maintains customer loyalty. The methods used by eFishery Fresh to maintain good relationships with customers are through social media, holding promotions and customer service.

e. Revenue Streams

Revenue stream is the source of a company's income. eFishery Fresh earns revenue through sales of its frozen fish products alone. The highest eFishery Fresh sales come from the business customer segment, namely 60%.

f. Key Activities

Key activities are the main activities or activities carried out by a company. The main activities carried out by eFisheryFresh are purchasing raw materials, controlling products and raw materials, fish processing, product promotion and sales, and product delivery.

g. Key Resources

Key resources contain assets owned by a company. At eFishery Fresh, the assets owned are employees and cold storage.

h. Key Partnerships

Key partnerships are business partners owned by a company. The following are eFishery Fresh's business partners, namely fresh fish suppliers, fish processing production implementers, packaging suppliers, supermarkets and shipping expedition services.

i. Cost Structure

The cost structure contains the costs incurred to support a business. The costs incurred to support the eFishery Fresh business are operational costs as well as raw and supporting material costs [3].

Because it is difficult to find information about business customer segments, the customer profiles discussed in this research only concern individual customer profiles. Customer profile data was obtained using interviews and distributing questionnaires. The following is the customer profile of individual eFishery Fresh customers:

- Customer Jobs: Get fresh fish, buy fish in an easy and practical way, buy fish with many variations.
- Customer Pains: Product stock is not always available, not yet available in e-commerce for the Jabodetabek area, difficult to find product information, takes a long time during the delivery process, product quality decreases during the delivery process, delivery services are not yet available for the Jabodetabekarea , does not have product size variations, is not yet available in all e-commerce.
- Customer Gains: Get products easily, easy process of choosing products, best product quality, ease of product processing, affordable prices, many product variations to choose from, clear after sales from eFisheryFresh [3].

Results of questionnaire calculations containing Lean Canvas analysis on customer interface, value proposition, infrastructure and cost / revenue variables carried out on eFishery Fresh. Where the calculation results obtained will be used in the Lean Canvas matrix to show which quadrant each variable is located in. Next, for each variable that is known to be in which quadrant, a proposed strategy will be prepared that will be used in designing the eFisheryFresh business model. The following is the proposed strategy and coordinate points in the Lean Canvas matrix for each variable based on the Lean Canvas questionnaire calculations:

- The Customer Interface is at point (1.88, 0.97) which is located in quadrant I (Fast Growth) by looking at the S-O strategy. So the proposed strategy is to increase sales in e-commerce, increase promotions, make e-commerce available in the Jabodetabek area, create a delivery fleet in the Jabodetabek area, increase the availability of shops in all major e-commerce areas, improve the quality of WhatsApp admin performance.
- The Value Proposition is at the point (2.30, -0.03) which is located in quadrant II (Massive Diversification) by looking at the S-T strategy. So the proposed strategy is to increase control of the final product, create a product guarantee, create seasoned frozen fish products, increase cooperation with various supermarkets, create products at affordable prices, create consultation services regarding products, create product variations, create product size variations.

➤ Infrastructure is at point (2.06, 3.99) which is located in quadrant I (Fast Growth) by looking at the S-O strategy. So the proposed strategy was obtained, namely increasing cooperation with production implementers who already have a Peri-kanan Certificate of Eligibility, providing extra packing options using ice gel, aluminum bubble wrap and cardboard / Styrofoam boxes, increasing the number of production implementers to increase production capacity.

➤ Cost / Revenue is at point (3, 0.41) which is located in quadrant I (Fast Growth) by looking at the S-O strategy. So the proposed strategy was obtained, namely creating a contract agreement with fresh fish suppliers regarding the purchase price of fish [3].

The following are the results of designing the proposed eFisheryFresh business model using the business model canvas:

- Customer Segments: Individual customers, business customers, creating export customers.
- Customer Relationships: Social media, increasing promotions, improving customer service, creating product consultation services, creating product guarantees.
- Channels: Social media, improving website, increasing e-commerce, creating a delivery fleet for the Jabodetabek area, making e-commerce available in the Jabodetabek area.
- Value Propositions: Products have the best quality, create seasoned frozen fish products, create affordable prices, create variations in product types and product sizes and create additional packaging options for customers.
- Revenue Streams: Sales of eFisheryFresh products.
- Cost / Structure: Operational costs as well as raw and supporting material costs.
- Key Activities: Marketing & sales, improving final product control, purchasing raw materials, improving fish processing, and product delivery.
- Key Resources: HR and cold storage.
- Key Partners: Suppliers of fresh fish, increasing the implementation of fish processing production, packaging suppliers, increasing cooperation with various supermarkets, shipping expedition services and creating contractual agreements with fish suppliers regarding prices [3].

3. METHODOLOGY

This study utilized simplified design thinking in the form of RSM design phases as can be seen in Figure 2, which divided the activity phase into three namely recognize that focus on the identification process of characteristics needed in developing apps, then scrutinize related to examine or inspect closely and thoroughly the information collected and finally materialize

related to bring into existence the solution based on the problem.

The design process uses prototype applications to increase knowledge and feedback and improve the expressive and interactive design of the application. The user interface is built with universal design as a principle for efficient and effective system usability, accessibility and learning [12]. Unimaginable and unpredictable things can be very important for understanding results-driven theories and concepts, phenomena and preparations in selecting the focused data and reflection concerns to be utilized from unlabeled groups to develop uniqueness character for creating value of application [13]. Mean-while, Figure 3 explains the step by step of the design phase, which offers the alternative perspectives based on designer situation such as define for creating new competitive program based on establishing the essence within the environment. Prior to determining the direction, it is also important to encourage the empathy level the problem identified in the market due to certain limitations and different objectives of prioritization of the organization.

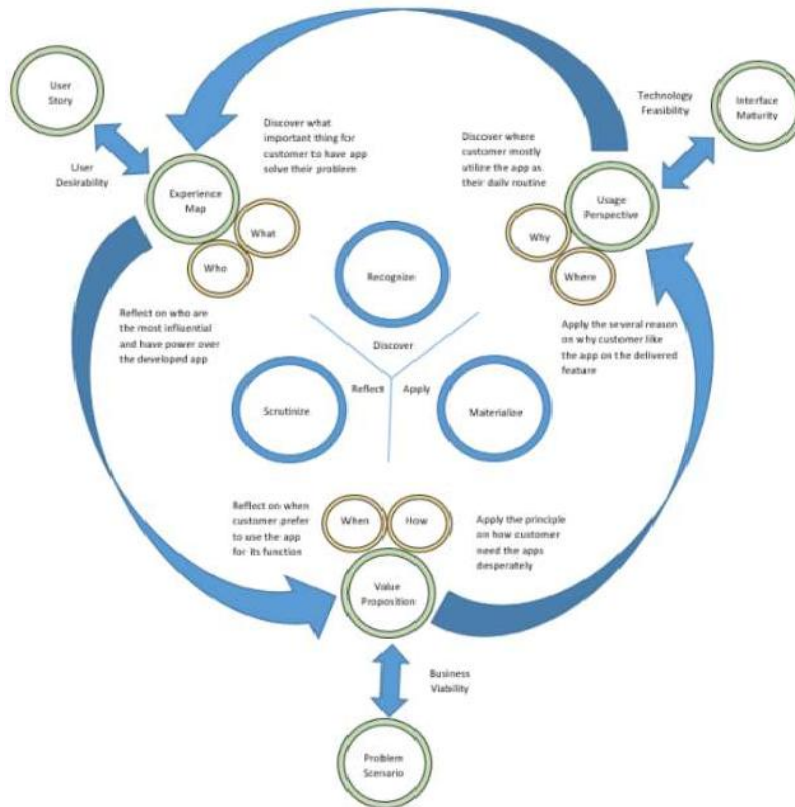


Figure 2. RSM Design Approach

4. RESULTS AND DISCUSSION

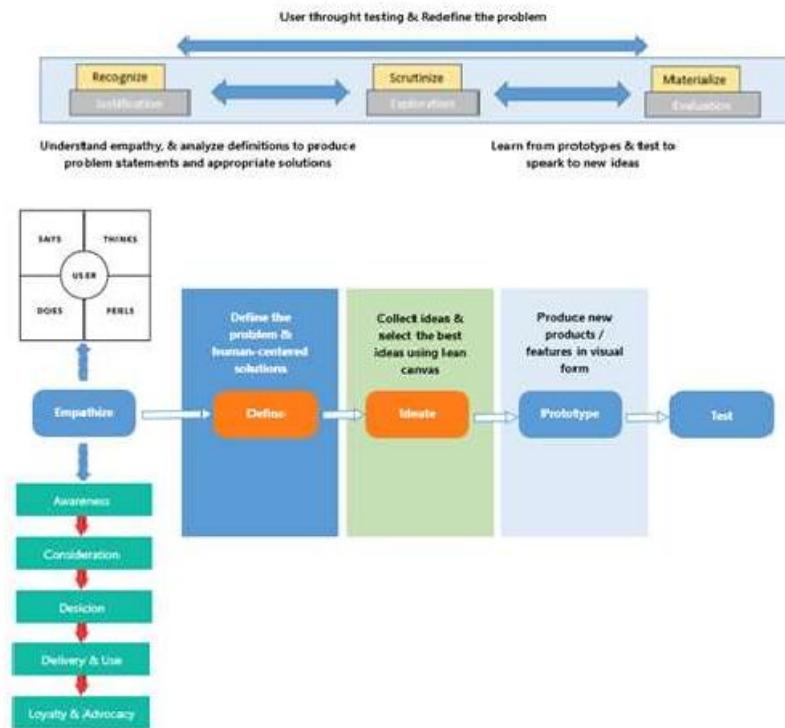


Figure 3.RSM Design Step

Radical innovation is defined as a significant and transformative breakthrough in technology, business model, process, or product that creates major change in an industry or society. This involves introducing revolutionary ideas, concepts, or approaches that challenge existing norms, disrupt markets, and often result in innovative advances. Implementing radical innovation can be a complex and challenging process, The author chooses a Customer-Centric when starting the journey of implementing radical innovation in an organization. Empathise explains how to get a complete understanding of the problem being faced by empathizing with the people who are the target market. Empathy is at the core of the process that makes this method human-centered. Other information encountered in developing the product or solution offered is part of the empathy stage.

In this Empathise stage the author made an interview with fish farmers, namely Kharuddin, SPi, MSi. Because according to the author, apart from customers, the most important thing is fish farmers. According to the author, the problem that occurs in Indonesia is that apart from the length of the fish sales chain from cultivators to consumers so that the price of fish becomes more expensive, cultivators definitely have other problems that need to be provided with solutions other than just bringing cultivators together with customers for fish transactions. in the efishery fresh application. From this interview the author provides questions based on the 4 quadrant empathy map & 5 stages customer journey map to get answers that suit the needs of

fish farmers.

A. Empathy Map :

a. Kuadran Says.

- Where do fish farmers usually sell fish?

➤ Middleman.

- The price of fish sold by middlemen is based on negotiated prices or according to market prices?

➤ Prices are determined by middlemen in general (prices are evenly distributed by almost all middlemen and not too far from market prices).

- What influences the price of fish when bought by middlemen?

➤ Number and size of fish.

- How much difference does the price given by middlemen to cultivators compare to the price of fish in the market?

➤ In the market the price of fish starts from IDR 20,000 – 25,000, while in cultivation the price of fish starts from IDR 15,000 – 17,000.

b. Kuadran Think.

- If, for example, there was an institution or platform to accommodate cultivators in selling fish, what do you think these cultivators want?

➤ There should be some kind of cooperative to manage the sales of fish farmers.

c. Kuadran Does.

- Does this mean that there needs to be a benchmark price for fish from a cooperative, whether through farmer consultation or market prices?

➤ The cooperative sets the price of fish based on market prices.

- To accommodate the fish farmers produce, does the cooperative have to have a fish holding pond?

➤ There is no need, because cooperative holding ponds will cause the risk of fish dying and fish prices increasing (transportation and tools to help fish stay alive during the transfer process from cultivator ponds to cooperative ponds).

- How do I buy fish at the cooperative?

➤ Customers come to the cooperative to buy fish according to the desired quantity from the selling price that the cooperative and its members have set for the buyer, then all that remains is to coordinate which cultivator ponds will be harvested.

d. Kuadran Feel.

- With the existence of this cooperative, can it increase people's interest and enthusiasm for fish farming?

➤ Yes, because people will only focus on cultivating fish without fear of selling fish. So farmers are more concerned with the quality of their fish for sale to customers.

B. Customer Journey Map :

a. Awareness.

- Are there certain reasons or events that cause people to be afraid of fish farming regarding this issue?

➤ Yes, because in the consumption fish cultivation business the profit margin is relatively low compared to cultivating fish seeds.

b. Consideration.

- Are there any special challenges that influence the farmer's consideration process for selling fish to the cooperative?

➤ There is, namely whether the cooperative is able to manage the fish needs that customers want with the number of fish owned by the members. As well as fairness in coordinating harvested fish farming ponds.

c. Decision.

- What are the important factors that make farmers choose to sell fish in cooperatives compared to other available products/services?

➤ What is certain is that with the existence of cooperatives, it is hoped that every member of the cultivator will be able to prosper through mutual cooperation in achieving our common goals. This is different from just selling fish on social media and other sales platforms which can cause price wars among farmers and also decrease the quality of fish because shipping fish is not the same as sending goods, in shipping fish there is special treatment and equipment that differs from type to type. fish so that the fish remains alive during the journey until it reaches the customer. So, with the existence of cooperatives, it is hoped that they will have special equipment and transportation provided for sending fish.

d. Delivery & Use.

- So the most prominent benefits of cooperatives are that they are free from price wars and have facilities provided for shipping fish to cooperative members?

➤ Yes and it is also more profitable for cultivators compared to selling fish to middlemen.

e. Loyalty & Advocacy.

- What can cooperatives do to ensure fish farmers join?

- Ensure fair coordination of each member's pool harvested at the appropriate price.
- What can cooperatives do to increase people's interest in joining and becoming fish farmers?
- Maybe by providing business capital for people who want to cultivate fish from the cooperative's treasury, so that they can pay for the capital from the cooperative after the community has harvested their pond.
- What can cooperatives do to ensure customers continue to buy fish from the cooperative?
- Maybe by creating a cooperative admin to serve every customer well.

After the Empathise stage is the Define stage, that is, from all the information obtained, analysis and synthesis of the information will be carried out to define the main problem which is answered by taking the user's point of view in delivering it, not the point of view of the solution maker or the business person.

This Define stage will help team members and designers to get suitable ideas for building features, functions and other elements so that users can solve their own problems without having difficulty using the product.

After carrying out the Define stage, then enter the Ideate stage. At this Ideate stage, designers have collected ideas and started selecting the best ideas from the ideas obtained at the Define stage. So as to produce an accurate problem statement. Here the author uses the Lean Canvas to validate ideas and business concepts that will be created.

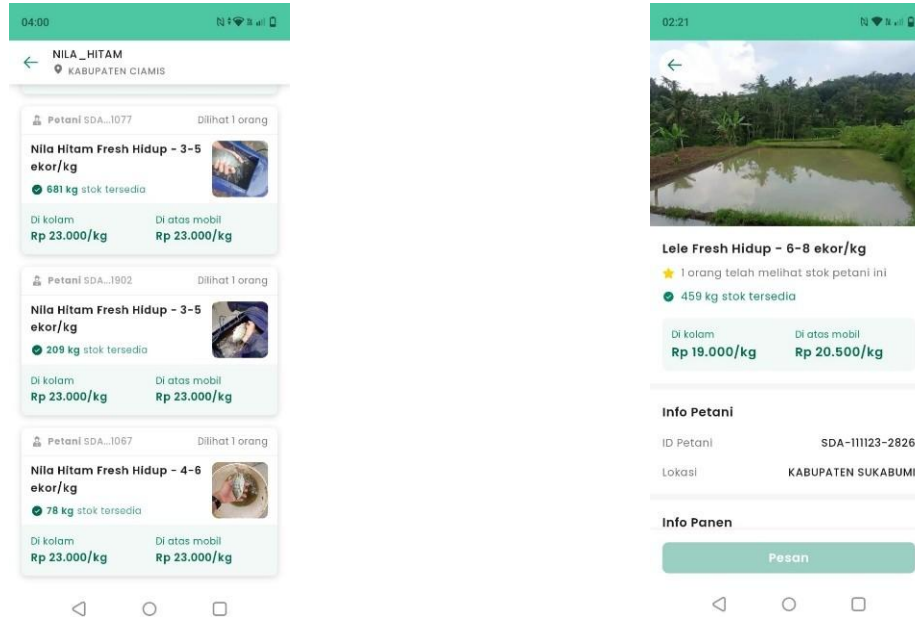
This Lean Canvas example includes information obtained from interviews about needs, solutions offered by cooperatives for fish farmers, as well as key aspects such as income, costs and advantages :

- Customer Segments: Conventional fish farmers and people interested in starting fish farming.
- Problem: Low profit margins in conventional fish farming and challenges in selling fish independently.
- Unique Value Proposition: Cooperative as a sales platform that guarantees fair prices, Special delivery facilities to maintain fish quality, Collaboration in demand management and fish sales.
- Solution: Cooperatives as a forum for coordinating the sale of fish for farmers, special equipment and transportation for delivering fish with guaranteed safety and quality, fairness in determining prices and coordinating fish farming ponds.
- Channels: Social campaigns to attract fish farmers into cooperatives, partnerships with educational institutions or government, social media and community events for education.
- Revenue Streams: Membership fees or contributions to the cooperative from members, Profit margin from selling fish at prices set by the cooperative, Potential income from special delivery facilities.
- Key Metrics: Number of cultivator members who join the cooperative, level of member satisfaction with prices and sales management, number and value of fish sold through the cooperative.
- Cost Structure: Cooperative management costs and special delivery facilities, Promotion and marketing costs to attract new members, Cooperative administration and operational

management costs.

➤ Unfair Advantage: Fair and coordinated price management system, Special delivery facilities to maintain fish quality, Partnership with educational institutions or government for support and promotion.

After getting several products or features resulting from ideation in a cheap or small scale form. This is done so that the solutions offered can be visualized and shared with other colleagues. Solutions can then be tried and evaluated together so that designers get suggestions for realizing better solutions according to the user's point of view at the Prototype stage.



Figur.4 List Features and Details of Fish Stalls.

Sell fish harvested by farmers more easily and quickly online at LapakIkan. Fish Stall is one of the features in the eFisheryKu application which can make it easier for farmers to sell fresh fish directly in large quantities without going through intermediaries.

With Fish Stall, farmers no longer need to worry about finding buyers for their harvested fish. To sell fish in the Fish Shop feature, farmers just need to enter the amount of harvest into the application. After that, representatives from eFishery will come to the cultivator's pond to check the fish that the cultivator will sell. If the check is complete, the fish that the farmer has sold will be paid immediately in cash.

By utilizing simplified design thinking in the form of RSM design phases. As seen in Figure 4, the Efishery Fresh application displays a list and details of fish cultivator stalls in the

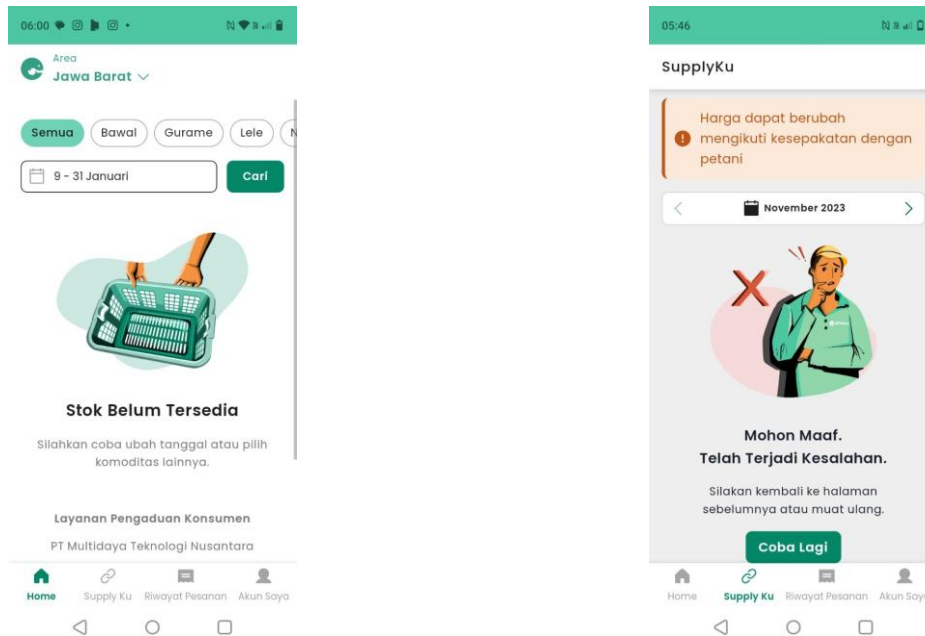
EfisheryKu application. For a list and details of cultivator stalls, just use the EfisheryKu application, because using the Efishery Fresh application causes uneven sales for each fish farming member. It could be that only some of the members' fish are sold. According to the Solution, Key Metrics and Unfair Advantage in the Lean Canvas, Efishery should be a forum for coordinating farmers' fish sales, the level of member satisfaction with prices and sales management and a fair and coordinated price management system. So the list feature and details of the fish farmers' fish stalls have been replaced with a list of types of fish and details of fish orders that customers want to buy.

Then in each detail of the stall as shown in Figure 4, there is the amount of fish stock available. If the stock of fish at each fish farmer's stall is different, it will cause customers to be able to buy more than one order of fish. Because the number of fish ordered by customers may not be enough, so they order fish from other farmers to meet their needs. In accordance with the Unique Value Proposition, collaboration in demand management and fish sales.

Efishery Fresh is a fish sales platform that utilizes harvest prediction data in each cultivation pond and connects directly to final buyers through digital transactions. Where eFishery Fresh sells fish from fish farmers who use equipment from eFishery Feeder. eFishery started its business from applications and IoT that help farmers to feed more efficiently, which is now called eFishery Feeder. With this application and IoT, eFishery can get various kinds of data from the farmers. This technology has been implemented and used in thousands of ponds and by hundreds of fish farmer groups in 22 provinces throughout Indonesia. This data is used Figure 1 Development of Farmers' Exchange Rates March 2020 - April 2020 to build harvest estimates and sell them directly to final buyers. In this way, the quality of the fish used by eFishery Fresh is guaranteed because at eFishery Fresh fish growth is monitored through data obtained from the eFishery Feeder tool.

Fish cultivators who use eFishery Feeder can make an agreement with eFishery so that the fish cultivator's production is purchased by eFishery and then distributed properly so that it reaches the hands of fish consumers. From here, Efishery can be said to be in accordance with the example of Lean Canvas as a Solution: namely Efishery as a tool and transportation for delivering fish with guaranteed safety and quality, Fairness in pricing which differentiates it Solution: Efishery cannot yet be used as a forum for sales coordination members of the fish cultivators and do not yet have special equipment and transportation fleet to deliver fish with guaranteed safety and quality.

Fish sales that utilize harvest prediction data in each cultivation pond and connect directly to final buyers through digital transactions should be able to meet customers' fish stock needs, but in reality this is not the case. It can be seen in Figure 5.



Figur.5 Fish Stock Notification.

This feeder sales system is unique because feeders are rented monthly. So farmers only need to pay the feeder rental fee per month, so this sales system is more pocket friendly for fish farmers. Then eFishery also sells fish food at low prices because eFishery has collaborated with several fish food brands. For fish farmers who cannot afford the cost of renting feeders and fish food, eFishery has an eFishery Fund business which functions to help provide fish farmers with capital for the cost of renting feeders and fish food, then the fish farmers will pay the money in installments every month to pay off their debts. the. From here Efishery can be said to be in accordance with the Revenue Streams in the example of the lean canvas created, namely membership fees or contributions to Efishery from members, profit margins from selling fish at prices set by Efishery, potential income from special delivery facilities.

For the profit margin from selling fish at prices set by the Efishery and the potential income from special delivery facilities, it can be seen in Figure 4 that there is a difference between the price at the pool and the price for the car. From the price difference margin, Efishery can take advantage of the profits. By agreeing on the price determined by Efishery with the cultivator members, it can lead to an increase in profits on the cultivator's side. So, in terms of the problems in the Lean Canvas example, they have been resolved, namely the low profit margins in conventional fish cultivation and the challenges in selling fish independently. With eFishery having an eFishery Fund business, in terms of Channels: Social campaigns to attract fish farmers to Efishery are appropriate.

After that we will carry out the Test process, the result of the Prototype stage is a list of the

best solutions that can answer user problems. Then this solution is realized and tried to develop a product/feature. Even though this is the final stage, this process itself is an iterative process that has no sequence. From this stage, a new understanding of users can be obtained so that other solutions can be created, such as the ability to dynamically establish the demand through vision of future utilization of certain products or services should be owned by respectable organization in order to develop radical innovation. It takes long term investment that usually 10 years or more through iterative, setback and high level of uncertainty, where the ideas often pop-up unexpectedly and from unexpected sources while the focus and purpose might change over the course of development [10, 11].

Conclusion

By utilizing simplified design thinking in the form of RSM design phases, it can be concluded that:

- **Feature Development and Strategy Adjustment:**

The Efishery Fresh application has changed its focus from displaying a list and details of farmers' stalls to a new feature, namely a list of types of fish and details of fish orders by customers. This is adjusted to market needs to ensure coordinated and equitable sales among cultivators.

- **Collaboration in Sales Management:**

Even though the theory of Unfair Advantage and Unique Value Proposition describes collaboration in the management of fish needs and sales, in its implementation fish sales still do not utilize harvest prediction data from each cultivation pond to meet customer stock needs.

- **Efishery Fund and Revenue Streams:**

There are efforts to help farmers who cannot afford to pay the costs of renting feeders and fish food through the Efishery Fund. This is in line with the Revenue Streams model described in the Lean Canvas, where membership fees and potential revenue from dedicated delivery facilities become part of Efishery's revenue.

- **Optimizing Profits and Resolving Business Challenges:**

With a price agreement between Efishery and cultivators, there is the potential for increased profits for cultivators. This is in line with resolving the problem of low profit margins in conventional fish cultivation and challenges in selling fish independently.

- **Social Campaign and Channel Strategy:**

In attracting cultivators, the social campaign strategy is in accordance with the Channel model described in the Lean Canvas, which includes social marketing to build a community of cultivators.

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