**Business Scope and Requirements**

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| **Project Name** | Interactive Marketing Agency for Assisting Producers in Selling Seafood Products |
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1. **Document Signatures**

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| --- | --- | --- | --- |
| **Role** | **Name** | **Signature** | **Date** |
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1. **Document Change Control**

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| --- | --- | --- | --- |
| **Version Number** | **Date of Issue** | **Author(s)** | **Brief Description of Change** |
| 1 | 06/04/2016 | Anirut Yaiyua | Creating the business requirements document |
| 2 | 08/04/2016 | Anirut Yaiyua | Adding cost-benefit analysis |
| 3 | 15/04/2016 | Anirut Yaiyua | Editing the process flow of placing products on sales |
| 4 | 20/04/2016 | Anirut Yaiyua | Limiting a single product with maximum 3 kilograms of weight to be stored in a distribution channel |
| 5 | 24/04/2016 | Anirut Yaiyua | Adding precondition to the product purchasing process |

1. **Definition**

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| **Term** | **Definition** |
| T/C | Term and conditions |
| THB | Thai baht |

1. **Business Scope**

The cooperative organization is created due to a desire of helping poor rural seafood producers in Thailand to sell their products in a more effective way. It has a main responsibility to store, manage, sell and deliver seafood products supplied from poor rural producers to potential consumers through an online solution called Interactive Marketing Agency. This solution provides a variety of services to producers and introduces an online seafood market to consumers.

**4.1 Business Strategies**

* to concentrate on ensuring successful business of seafood producers who use its services,
* to guarantee the freshness of seafood products,
* to keep extending a variety of seafood products in order to ensure customers, are satisfied with broad product selection,
* to ensure the least effort that seafood producers need in order to perform their business,
* and to minimize late delivery.

**4.2 Business Perspectives**

* Online distribution company:

Cooperative Organization provides a range of services through Interactive Marketing Agency for producers who wish to sell their seafood products online. It manages product inventory for producers to make sure that the product quality is satisfying as well as controls delivery process to ensure minimum late delivery.

* Accelerating volume of business:

Effectively advertising and increasing a range of products will rise a possibility that customers will become increasingly engaged in the business.

* Competing against large seafood companies

Cooperative Organization forms a large group of seafood producers to ensure that a variety and a number of products are competitive to other companies in the market.

* Optimizing the quality image in the market

Realizing an importance of keeping product fresh is to guarantee that product quality is the number one concern.

**4.3 External parties and their roles**

Customers

* Seafood consumers

Producers

* Producers who wish to sell their seafood products through the organization

Partners

* Cold Storage Rental Company

Cooperative Organization signs a contract with the company which supplies cold storages for keeping fresh seafood products in different areas in Thailand to ensure the fresh seafood products can reach consumers as fast as possible. Staff hired by Interactive Marketing Agency is located in those areas to manage physical inventories.

* Delivery Service Company

Cooperative Organization partners up with the delivery service company which is responsible for delivering products from different inventory locations to customers. The organization also locates staff at each inventory area to make sure that the ordered products are properly prepared for delivery.

**4.4 Business Activities within the scope**

* Managing physical inventories

Cooperative Organization provides an inventory management service for those producers who opt to store their seafood products with the organization. This service ensures that products are properly kept and sold to customers without having expired.

* Preparing seafood products for delivery

Cooperative Organization prepares and delivers fresh seafood products to the customers within the minimum period of time

* Developing a website used as a medium between consumers and producers for trading seafood products

Cooperative Organization desires to develop an Interactive Marketing Agency which can be used as an online trading market between seafood producers and customers. It will be combined with a variety of services that help producers sell seafood products more easily.

1. **Cost-Benefit Analysis**

As the cooperative organization provides seafood producers with the inventory and delivery service, cost-benefit analysis needs to be performed in order to produce appropriate requirements considering the costs of service operation such as a service fee. This will help the cooperative organization in estimating costs and benefits that will occur to both the organization and the producers. The costs of the service operation occurring to the organization have to be firstly evaluated and analyzed, thus the cooperative organization will be able to acknowledge how the fee should be charged from producers who use the service. After having known the fee and other estimated costs that a producer needs to pay to sell a product, the net profits will be calculated. So this cost-benefit analysis will summarize how much the net profit that producers can approximately earn from selling products using this solution, after deducing the total cost.

There are two main costs of providing the inventory and delivery service that the organization has to take into account including labor cost and rental cold storage cost. These two costs will be calculated based on a 3-kilogram product, as the system limits only 3 kilograms in maximum of each product for a producer to store in a Distribution Channel. Also, this will be evaluated depending on the realistic situation in Thailand. To store a 3-kilogram product in the system, there are two possible ways that labor cost will happen in order to handle the product. The first is the process of removing and eliminating the product that has expired without being sold. The another is the process of preparing the products for delivery as ordered. The labor times spent on each process are assumed as follows:

* Removing and eliminating a 3-kg expired product consumes 10 minutes of labor time.
* Preparing a 3-kg product for delivery consumes 10 minutes of labor time.

This summarizes that a 3-kg product stored with the system will consume 10 minutes of labor time regardless of which process is taken to deal with the product. As the lowest labor cost in Thailand is 300 THB per 8 hours, handling a 3-kg product with 10 minutes would cost labor for approximately 6.25 THB. In addition, the storage space for storing a 3-kg product would cost 20 THB, thus the total cost that the cooperative organization needs to deal with products is 26.25 THB/item. This total cost will be considered a fee applicable to a producer who wishes to store his/her products with the system. So the net profit of a producer will potentially earn from selling each product can be calculated. This calculation will be demonstrated based on the five popular seafood items in Thailand as shown in the following table.

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|  | **Salmon** | **Oyster** | **Shrimp** | **Crab** | **Squid** |
| Cost/item of products from ocean (THB) | 350 | 300 | 120 | 400 | 80 |
| Packaging cost/ item (THB) | 20 | 10 | 20 | 30 | 30 |
| Transportation cost/ item (THB) | 15 | 15 | 15 | 15 | 15 |
| Service fee/ item (THB) | 26.5 | 26.5 | 26.5 | 26.5 | 26.5 |
| Market price/ item (THB) | 570 | 450 | 275 | 650 | 190 |
| Net profit/ item (THB) | 158.5 | 108.5 | 93.5 | 178.5 | 38.5 |
| Net profit/ item (%) | 38.52% | 30.87% | 26.60% | 37.86% | 25.41% |

1. **Business Requirements**

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| **Req ID** | **Requirements** |
| BR01 | Need an online channel for producers to sell seafood products through. |
| BR02 | Need a website for customers to be able to purchase seafood products online. |

1. **Functional & Non-Functional Requirements**

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| **7.1 Functional Requirements** | |
| **Req ID** | **Requirements** |
| FR01 | The application should be able to charge 26.5 THB for each item from producers who use inventory and delivery service. |
| FR02 | The application should be able to remove expired products from the product list. |
| FR03 | The application should be able to notify the producer if his/her product has expired. |
| FR04 | The application should be able to determine whether the product will expire before its arrival at customers’ hands. |
| FR05 | The application should be able to prevent a product that will expire in less than 4 days from being added to the system according to the average lifetime of seafood products. |
| FR06 | The application should be able to inform a producer of what postcodes his/her products can be delivered to, from the selected Distribution Channel. |
| FR07 | The application should be able to inform a customer once his/her order is successful. |
| FR08 | The application should be able to allow a product with maximum 3 kilograms of weight to be stored within a distribution channel. |

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| **7.2 Non-Functional Requirements** | |
| **Req ID** | **Requirements** |
| NFR01 | The website should completely load search results within 5 seconds. |
| NFR02 | The website should completely generate a report for a producer within 10 seconds. |
| NFR03 | The website should completely generate a report for the cooperative organization within 10 seconds. |
| NFR04 | The website should be able to contain an unlimited amount of products. |

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| **7.3 Producer Requirements** | |
| **Req ID** | **Requirements** |
| PR01 | A producer needs to be able to register and login to use the system. |
| PR02 | A producer needs to be able to list products for sales once his/her account is registered. |
| PR03 | A producer needs to be able to list payment methods for receiving payments from his/her customers. |
| PR04 | A producer needs to be able to choose to store and deliver their products either by using a provided service or him/herself. |
| PR05 | If a producer chooses NOT to use inventory and delivery service provided by the website, he/she needs to be able to determine a set of delivery methods for customers to choose. |
| PR06 | If a producer chooses NOT to use inventory and delivery service provided by the website, he/she needs to be able to specify postcodes where he/she can manage to deliver products to. |
| PR07 | If a producer chooses to use inventory and delivery service provided by the website, he/she needs to be able to select a Distribution Channel where he/she wants his/her products to be stored. |
| PR08 | If a producer chooses to use inventory and delivery service provided by the website, he/she needs to be able to determine a method of notification when a product has expired. |
| PR09 | A producer needs to be able to apply a promotion to his/her product. |

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| **7.4 Customer Requirements** | |
| **Req ID** | **Requirements** |
| CR01 | A customer needs to be able to register or login to the website. |
| CR02 | A customer needs to be able to purchase products from the website without having to login to the website. |
| CR03 | A customer needs to be able to specify his/her address to receive products. |
| CR04 | A customer needs to be able to select a payment method provided by a producer whom he/she wishes to purchase a product from. |
| CR05 | A customer needs to be able to select a delivery method provided by the website or a producer depending on where that product is stored. |
| CR06 | A customer needs to be able to track the delivery status of his/her order. |
| CR07 | A customer needs to be able to rate the product that he/she has already purchased before. |

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| **7.5 Reporting Requirements** | |
| **Req ID** | **Requirements** |
| RR01 | The cooperative organization needs to be able to generate daily, weekly, monthly or annually sales report. |
| RR02 | The cooperative organization needs to be able to filter product category, producer and distribution channel on the sales report. |
| RR03 | A producer needs to be able to generate daily, weekly, monthly or annually sales report. |
| RR04 | A producer needs to be able to filter product category on the sales report. |
| RR05 | A customer needs to be able to search for products using product name, product category, price range and shippable location or postcode. |

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| **7.6 Security Requirements** | |
| **Req ID** | **Requirements** |
| SR01 | Password should contain at least one letter and one number. |
| SR02 | Password should be 12 characters long. |
| SR03 | Password should be encrypted in the database. |
| SR04 | Payment information should be encrypted in the database. |
| SR05 | The identification number of a producer should be provided for registration. |

1. **Use Case**

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| **8.1 Placing products on sales** | |
| **Actors** | Producer, Cooperative Organization |
| **Description** | This use case describes the process of placing a product for sales on the website. |
| **Preconditions** | The producer needs to have registered for an account including adding payment details to pay fees and to receive payments. |
| **Triggers** | To place products on the website which can been purchased by customers |
| **Flow of events** | 1. The producer logins to the website. 2. The producer agrees terms and conditions. 3. The producer selects to store and deliver products either by using a provided service or him/herself. 4. If using inventory and delivery service, the producer brings his/her products to the selected Distribution Channel and specify a credit card to pay a fee for storing products with the organization. 5. If not using inventory and delivery service, the producer specifies delivery methods and postcodes where he/she can manage to deliver the products to. 6. The producer enters product details into the website. 7. The system verifies product details. 8. The producer confirms to place the products on sales. |
| **Success Criteria** | The website shows the confirmation message. |
| **Exceptions** | The server is down. The producer needs to wait for 5 minutes and try again. |

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*Figure 7.1 – Shows the process flow of placing products on sales by a producer*

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| **8.2 Placing an order** | |
| **Actors** | Customer, Cooperative Organization |
| **Description** | This use case describes the process of placing an order for purchasing products. |
| **Preconditions** | The customer must have identified his or her details and at least one address. |
| **Triggers** | To purchase products from the website |
| **Flow of events** | 1. The customer selects products to shopping cart 2. The customer confirms checkout. 3. The customer agrees terms and conditions. 4. The customer enters his/her address. 5. The customer selects one of delivery methods. 6. The customer selects one of payment methods. 7. The customer enters bank account details. 8. The system verifies the customer’s bank account details. 9. The customer confirms the order. |
| **Success Criteria** | The website shows the confirmation message. |
| **Exceptions** | The server is down. The customer needs to wait for 5 minutes and try again. |

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*Figure 7.2 – Shows the process flow of placing an order by a customer*

REFERENCE TO DOCUMENT TEMPLATE