# IMPROVEMENT ON DELIVERY SERVICE IN DROPSHIPPER COMPANY: CASE OF AQUARIST FARM

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*Abstract*

*Despite the rapid increase of E-commerce users, there are some issues available, such as customer's behaviour, payment infrastructure, logistic infrastructure, legal and regulation infrastructure. However, in this journal, only logistic infrastructure is discussed. Currently, Aquarist Farm, a drop shipper company based on livestock, also has problems on logistic which lead to poor delivery service.*

*To find the root causes, conceptual framework is developed based on the 5 delivery service qualities (tangibility, empathy, reliability, responsiveness, assurance). After being surveyed, the customer concerns are on the Empathy and Tangibility of the delivery service. There are 6 root causes to be discussed in this research: document error, Aquarist Farm policy, few numbers of suppliers, supplier's attitude, lack of response of Aquarist Farm, lack of website information.*

*After calculating the result from criteria and impact, The best solution for each root causes is giving compensation to the customer for document error, consolidating number of routes for Aquarist Farm policy, making own farm for few number of suppliers, changing supplier for supplier's attitude, setting a reminder to reply for lacking of response to customer, adding more website for lacking of website information.*

*Keywords: Drop shipper, E-commerce, service quality, delivery service*

*JEL Classification: L87*

**INTRODUCTION**

E-commerce is the abbreviation of electronic commerce and can be defined as the conduct of selling, buying, doing logistics processes, or other management issues via the web or internet [1]. E-commerce allows consumers to electronically exchange goods and service with no barriers of time and distances. Electronic Commerce has expanded rapidly and continued to grow and even accelerate due to rapid growth of technology.

Despite that rapid increase of E-commerce user in Indonesia, there are some issues available [2]:

- Behavior. Indonesia is still lacking to trust in E-commerce sites. [3]. Moreover, internet penetration in Indonesia is also still low (23% of total population) [4].

- Payment Infrastructure. Most of transactions are still using bank transfer method which requires more procedures. [4]

- Logistic Infrastructure. Most E-commerce startups aren't paying attention to this issue, because they think that they only provide the market place without concerning the logistics. According to the survey by Dailysocial.id (Figure 1.1), delivery time and order status are the main issues of logistic infrastructure. [5]

- Legal and Regulations. Currently, E-commerce players are not convinced by absence of laws protecting them.
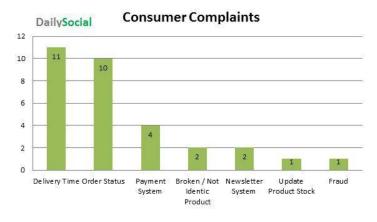


**Figure 1. The survey of logistic infrastructure problem.**
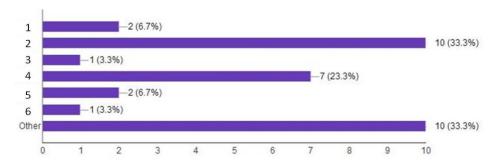
Source: Dailysocial.id, 2015

Despite those issues mentioned above, in this journal, only **logistic infrastructure** will be discussed. This is because the company that is a subject to this research is currently facing the logistic infrastructure problems. Thus, the main question is **how Aquarist Farm can solve these delivery issues while logistic service is outside of company's reach.**

**Aquarist Farm** is an E-commerce company based on livestock. The products are freshwater prawns. However, this E-commerce company is using drop shipper system which means that the owner of the company doesn't own the product. Thus, the owner, Michael Adiputra, works only as marketing officer and delivery admin. As marketing officer, the supplier's products are being advertised by himself and as delivery admin, the delivery service is being monitored by him and the report status of the delivery is sent to the customer.

Aquarist Farm's business process is basically connecting the suppliers and the customers through this company. Customers will ask and negotiate the price with the marketing officer, then transfer the payment. After dealing, marketing officer will pay the price to the supplier and ask the supplier to transfer the goods to the customer with the confirmation from marketing officer. The price gap between payment from customer and price from supplier is Aquarist Farm's Revenue.

The survey held for its customer (Figure 1.3) also told that the complaint mostly put on delivery service. There are 19 complaints out of 33 about delivery service. Those are lack of the status of product and delivery (10 out of 33), delivery lateness (7 out of 33), lost of goods (1 out of 33), and product's death due to delivery (1 out of 33).



1. Dissatisfaction with the quality and the condition of the product
2. Lack of information about product or delivery service
3. Lost of goods or Didn't accept the product
4. Lateness of Delivery time
5. Slow Response from Aquarist Farm
6. Ignorance to customer's situation

**Figure 2. Survey of Complaints**

## LITERATURE REVIEW

The literature reviewed for this research is 5 service qualities (Pasuraman, et al., 1990). Those are tangibility, empathy, reliability, responsiveness, and assurance. [6]

**Tangibility** refers to the appearance of physical equipments, facilities, including work-on areas on-site. This also includes packaging quality and for E-commerce, website appearance.

**Reliability** refers to the company's ability of performing and completing the service accurately and correctly within the given set requirements between the company and customers. If it is about the delivery service, punctuality and quality of goods while being delivered is the factors that have to be considered.

**Empathy** refers to how the company gives individualized attention and care for their customers. This includes the liveliness of the communication occurred between each individual customer and the company. Moreover, in case of Aquarist Farm, Flexibility of delivery is also included because Aquarist Farm also negotiates the delivery schedule with the customer.

**Responsiveness** refers to how the company's willingness to help and provide the customers, with a good quality and fast service. Responsiveness is not also about how the company reacts when receiving order from customers but also about how company reacts when receiving complaints.

**Assurance** refers to how company can gain trust and confidence of the customers. The matching products quality as advertised from the website is one important factor for gaining assurance. The customer would also want the product to be guaranteed as an assurance for the goods being delivered.

Since the issue of Aquarist Farm is poor delivery service, the conceptual framework is built based on 5 service qualities.
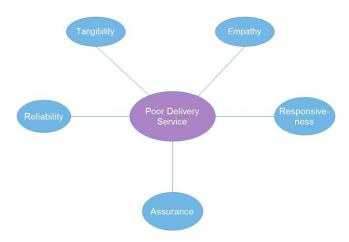
**Figure 3. Conceptual Framework**

## RESEARCH METHOD

The research method was using survey on Google Forms. 30 of its customers were asked to fill the survey via the link that has been provided. The survey was asking about the 5 service qualities mentioned above. There were 11 questions asked. Each 2 questions asked about each of the service qualities and 1 question asked about the overall quality.

The questions are:

- **Questions about Assurance (marked as "ASS")**
  - (ASS1) How was the availability of information of the goods that will be delivered?
  - (ASS2) How was the quality of guarantee or compensation given by Aquarist Farm if there are unmatched goods, defects, or lost?
- **Question about Empathy (marked as "EMP")**
  - (EMP1) How was the flexibility of the delivery schedule?
  - (EMP2) How was the liveliness of communication occurred (including about the unavailability of the goods and delivery delay)?
- **Question about Reliability (marked as "REL")**
  - (REL1) How was the accuracy or punctuality of delivery time?
  - (REL2) How was the quality of goods while being delivered?

- **Question about Reliability (marked as "TAN")**
  - (TAN1) How was the quality of packaging?
  - (TAN2) How was the clearance of Delivery information that is stated in the social media or website?

- **Question about Responsiveness (marked as "RES")**
  - (RES1) How was the responsiveness of Aquarist Farm if you want to ask about products, and order products?
  - (RES2) How was the responsiveness of Aquarist Farm if you want to submit complaints?

- **Question about Overall Quality (marked as "OVR")**
  - (OVR) How was the responsiveness of Aquarist Farm if you want to submit complaints?

## RESULT AND DISCUSSION

**Table 1. Survey Result**

| 5 Service Qualities Parameter | | | | |
|---|---|---|---|---|
| ASS1 | ASS2 | EMP1 | EMP2 | TAN1 |
| 4.1 | 4.2 | 2.83 | 4.27 | 4.13 |
| TAN2 | REL1 | REL2 | RES1 | RES2 |
| 3.87 | 4.23 | 4.2 | 4.5 | 4.13 |
| OVR | | | | |
| 4.0 | | | | |

According to the survey result on Table 1 by the customer, there are 2 parts that gained the score less than 4.00. Those are EMP1 and TAN2. It can be determined the company lacks of Empathy and Tangibility. The question asked for EMP1 is "**How was the flexibility of the delivery schedule?**" and the question asked for TAN2 is **"How was the clearance of Delivery information that is stated in the social media or website?"** Low

score result on those two questions means that the company is not flexible at making delivery service and the company's website does not provide clear information about delivery service. Thus, It can be determined that Aquarist Farm lacks of Empathy and Tangibility at some points.

The 6 root causes can be found after doing root cause analysis:

● Document Error. Document Error is either wrong data input by supplier or correct data input but wrong product.

● Aquarist Farm Policy. The policy is made under the deal between the supplier and the drop shipper. There is limitation of 3 deliveries per supplier per day.

● Few Numbers of Suppliers. There are currently only 2 active suppliers from 3 suppliers available for Aquarist Farm only.

● Supplier's Attitude. One of the 3 suppliers available has bad attitude. This problem will need action to prevent the supplier's lateness.

● Misreport or lack of report to customer. This error can be categorized as simple human error.

● Lack of website information. Website needs regular update, especially to add more information such as, product and price, delivery service, and method of payment.

After determining the root causes, some alternatives of the solution have to be prepared, analyzed, and determined the best one for each root causes. Table 2 shows the alternatives for each root causes.

**Table 2. List of Root causes and Alternatives Available**

| No | Root Cause | Alternatives |
|----|-----------|-------------|
| 1 | Document Error | Do nothing |
| | | Prepare a list of document and check list |
| | | Add more human resources for checking |
| | | Give other type of compensation to the customer (discount voucher, or free delivery service) |
| 2 | Aquarist | Do nothing |

| | Farm Policy | Upgrade the policy slowly |
|---|---|---|
| | | Consolidation number of routes |
| | | Partnership |
| 3 | Few Number of Suppliers | Do nothing |
| | | Add number of Supplier |
| | | Partnership |
| | | Make own farm |
| 4 | Supplier's Attitude | Do nothing |
| | | Supplier change |
| | | Make own farm. |
| 5 | Lack of Response to customer | Do nothing |
| | | Set a reminder to reply if currently unavailable |
| | | Set an Auto reply bot |
| 6 | Lack of Website Information | Do nothing |
| | | Update the current website regularly and add more detail about delivery service |
| | | Add more website for fulfilling lack of information on the main website. |

The goal is choosing the best decision for each root causes. In order to choose the best decision, this research is using combined method between AHP (Analytic Hierarchy Process) and scoring method [7]. The criteria for determining are QCDSM (Quality, Cost, Delivery, Safety, and Morale) [8].

The importance rate of each criteria to the alternatives are ranked with AHP method. The impact score of each criteria are ranked based on scoring method. Then, importance scores are multiplied with the impact to obtain the score of solution. Since there are 5 criteria, the score of each importance X impact are being summed to obtain the total score. The highest total score are the best solution alternatives for each root causes.

**Table 3. Best Solution for Each root causes.**

| No | Root Cause | Alternatives | Score |
|---|---|---|---|
| 1 | Document Error | Do nothing | 3.00 |
| | | Prepare a list of document and check list | 3.83 |
| | | Add more human resources for checking | 3.53 |
| | | Give other type of compensation to the customer (discount voucher, or free delivery service) | 4.05 |
| 2 | Aquarist Farm Policy | Do nothing | 3.00 |
| | | Upgrade the policy slowly | 3.06 |
| | | Consolidation number of routes | 3.95 |
| | | Partnership | 3.34 |
| 3 | Few Number of Suppliers | Do nothing | 3.00 |
| | | Add number of Supplier | 3.57 |
| | | Partnership | 3.21 |
| | | Make own farm | 3.72 |
| 4 | Supplier's Attitude | Do nothing | 3.00 |
| | | Supplier change | 3.74 |
| | | Make own farm. | 3.34 |
| 5 | Lack of Response to customer | Do nothing | 3.00 |
| | | Set a reminder to reply if currently unavailable | 3.59 |
| | | Set an Auto reply bot | 3.50 |
| 6 | Lack of Website Information | Do nothing | 3.00 |
| | | Update the current website regularly and add more detail about delivery service | 3.45 |
| | | Add more website for fulfilling lack of information on the main website. | 3.70 |

**CONCLUSION**

This E-commerce company is lack of Tangibility and Empathy in their delivery service quality (logistic service). The poor delivery service is caused by 6 root causes:

Document Error. Aquarist Farm Policy, Few Numbers of Suppliers, Supplier's Attitude, Misreport or lack of report to customer, Lack of website information.

After doing some analysis using AHP, the best solution for each root cause can be determined. For document error, it is to give other type of compensation to the customer (discount voucher, or free delivery service). For Aquarist Farm policy, it is to consolidate some number of routes. For few number of suppliers, it is to make own farm. For supplier's attitude, it is to change the supplier. For lacking of response to customer, it is to set a reminder to reply if currently unavailable. For lacking of website information, it is to add more website for fulfilling lack of information on the main website.

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