

# Digital Platform Utilization for Indonesian Marine Products Marketing: A Study Case on Aruna Indonesia

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**Abstract**—Marine products is one of main contributors to maritime economy in Indonesia, but marine product industries' contribution to the GDP and coastal community welfare in Indonesia are considered low. Aruna Indonesia is a start-up that links fishermen as individual and cooperatives with the end buyers through the utilization of Information Technology (IT). Fishermen place their products on Aruna Indonesia website thus the end buyers can order the products online. Aruna Indonesia establishment is seen as one of mushrooming phenomenon of e-commerce in Indonesia, as well as the solution to marine products closed distribution chain problems. Fishermen as Aruna Indonesia partners require the engagement and support in e-commerce. The problem identification of this study is how significant is the digital platform towards marine products marketing to support fishermen welfare in Indonesia. This research uses qualitative method with interview and literature study data collection. Research result shows that the utilization of digital platform can ease and enlarge marine products marketing and increase the fishermen welfare as partners.

**Keywords:** *digital platform, marine products, marketing management*

## I. INTRODUCTION

Indonesia as the largest archipelago country has powerful potential to become the World Maritime Axis. This is the flagship program of the President of Indonesia to bring back Indonesian identity as a maritime nation. This was also supported by a shift from geo-economics and geo-politics from the west to East Asia. The rise of Asian countries is directly a good momentum to support Indonesia aspirations to become the World Maritime Axis. The maritime axis of the world is a strategic idea that needs to be realized to ensure connectivity between islands, development of the shipping and fisheries industry, improvement of sea transportation and a focus on maritime security.

In realizing Indonesia as the world maritime Axis, maritime development from the aspects of infrastructure, politics, social culture, law, security and economy need to be improved. In this case, the economic aspect is an important aspect in supporting the policy. As a maritime nation, fisheries and marine products should have a great contribution to Indonesia's maritime

economy. However, the contribution of fisheries industry and marine products to GDP and the welfare of the Indonesian people are still low.

It is the impact of non-transparent fish trading from fishermen to middlemen and to end consumers. Fishermen don't know the price of the fish they sell, as well as the buyers who don't know where the fish they bought came from. While the government does not have control over the prices of fisheries and marine products on the market, brokers and buyers are the controllers in determining market prices. Therefore, Aruna Indonesia as one of the e-commerce that focuses on fisheries and marine products offers a solution that brings together fishing communities as producers of fisheries and marine products with end consumers who use these fisheries and marine products. In short, Aruna Indonesia is a start-up that connects fishermen as individuals and cooperatives with end buyers through the use of Information Technology (IT).

Fishermen place their products on the Aruna Indonesia website so that the final buyer can order products online. The establishment of Aruna Indonesia is seen as one of the phenomena of mushrooming e-commerce in Indonesia, as well as solutions for fisheries and marine products that cover the distribution chain problem. Fishermen as partners of Aruna Indonesia need involvement and support from e-commerce and IT. However, the problem that then arose was the lack of the ability of fishermen partners to use applications offered by Aruna Indonesia. In addition, questions still arise about the effectiveness of using this digital platform for marketing fisheries and marine products to support the welfare of fishermen.

Therefore the identification of the problems raised in this study include: How significant is the digital platform for marketing fisheries and marine products to support the welfare of fishermen. Thus, the purpose of this study is to analyse the ability of fishermen as partners in using IT and analyse how significant the digital platform is for marketing fisheries and marine products to support the welfare of fishermen. It is hoped that this research can be a contribution of thought for the government, the fishing community and Aruna Indonesia in transacting fisheries and marine products transparently,

facilitating and enlarging the marketing of fisheries and marine products and improving the welfare of fishermen as partners follow.

## II. THEORETICAL FRAMEWORK

E-commerce defines as commercial transactions conducted online. Buying and selling something by internet using application is e-commerce. According to Wallerstein [1], empowerment is a social action process that promotes participation of people, organizations, and communities towards the goals of increased individual and community control, political efficacy, improved quality of community life, and social justice. While Whitmore [2] feels the concept of empowerment needs to be more clearly defined, she states that there are some common underlying assumptions: individuals are assumed to understand their own needs better than anyone else and therefore should have the power both to define and act upon them, all people possess strengths upon which they can build empowerment is a lifelong endeavour. Personal knowledge and experience are valid and useful in coping effectively. For the purpose of this study, empowerment was defined as processes whereby individuals achieve increasing control of various aspects of their lives and participate in the community with dignity.

## III. METHODS

This research is using qualitative design, which is used to explore and understand the social and humanitarian aspects from individual or groups. The approach of this research is case study where the case study is an exploration of a system or a certain case from time to time which involves resources which possess rich data and information related. The case study is selected since this research is focusing only for Digital Platform Utilization for Indonesian Fishery and Marine Products Marketing: A Study Case on Aruna Indonesia. This research was conducted during April to October 2019. The location of the research was located in Jakarta. To analyse data, this research used Miles and Huberman model which the analysis were conducted continuously until the data is saturated.

## IV. RESULTS

Indonesia is one of the largest maritime nations in the world. As such, it has considerable potential to capitalize on its marine resources, including fisheries, salt, as well as marine transportation facilities and tourism. According to Indonesia's Central Agency for Statistics (BPS), however, the contribution of the fishery sector to gross domestic product (GDP) is fairly small. The Jakarta Globe reported last year that in 2016, fisheries contributed just 8 percent of Indonesia's gross domestic process.

The vastness of the sea and its great potential does not guarantee the welfare of its economic actors. Traditional fishermen are still associated with poverty and underdevelopment. There are many problems experienced by traditional fishermen, including a lack of skills, limited facilities, and extreme competition. Conflict between fishermen

has not been a special concern for the government, even though when it is not handled properly it can have serious results.

Various conflicts have emerged among fishermen in several regions of Indonesia, including the North Coast of Java, Papua, and Riau. Frictions occur between traditional and modern fishermen who have different methods and capabilities. Having ships with larger capacity and greater range, modern fishermen are able to catch more fish and reach a wider area.

The decreasing number of fish due to overfishing causes some modern fishermen, intentionally or not, to enter areas that are usually fished by traditional fishermen. This situation is a frequent factor causing conflict among fishermen as traditional fishermen are squeezed out of their usual fishing grounds. Such conflicts often result in some material losses, such as damage to boats or buildings caused by riots, or injuries. In some cases, people have had to evacuate areas due to clashes stemming from fishing disputes.

Potential conflicts over fishing grounds among fishermen can be predicted to continue as long as there is no marine zoning regulation or enforcement. There is a division of authority related to fisheries in Law no. 23 on Local Government 2014 [3]. Nonetheless, the rules only discuss the scope of local government authority, not that of fishermen. The Management and Zoning Plan of Coastal Zones and Small Island Islands (RZWP3K) should serve as a detailed guideline for the utilization of space at sea. Unfortunately, the RZWP3K is still in the process of drafting.

The absence of zoning rules makes fishing activities uncontrolled and exploitative. The absence of strict regulations ignites competition among fishermen, with modern fishermen more capable and traditional fishermen not protected by zoning or regulations.

Traditional fishery in this paper is defined as fish and fish products catch in traditional way, by the fishermen as individuals, and not part of companies. The traditional fishery market in Indonesia consists of at least three elements: fishermen, tengkulak (re: collector), and the end buyer. The market structure is a closed market, meaning that the end buyer is in the position of not knowing the product origins while the main supplier (or in this case is fishermen) does not know the price sold to the end buyer. The most decisive element in the structure is tengkulak.

Traditional fishermen usually has no access to cold storage to store their catch, they can only afford cold box that they bring during their time at the sea. Tengkulak is the one that have cold storage facilities. Right after being on land, they will immediately sell the fresh products to tengkulak so they will not have to store their catch longer than needed to avoid decaying process.

Furthermore, due to the low educational level of fishermen, they also have little to no access to the market knowledge. They do not understand how to establish access to the customers that might buy their products with much higher price than tengkulak. Even though tengkulak offer them with low price, fishermen still see tengkulak as their helper, seeing tengkulak as the only ones who are willing to buy their catch. Dependence of fishermen to tengkulak also grew by the

fishermen need of hard cash, tengkulak will lend them money in return to the loyalty of fishermen to sell catch to them.

With the growth of smartphone and internet sales, e-commerce in Indonesia flourished throughout the years. In accordance with the growth of delivery services, online sales cover almost all areas in Indonesia.

For other commodities, e-commerce simply connects seller and buyer. There might be platforms to bridge, but the basic idea is connecting the seller and buyer. The scheme is possible for other commodities because the production and distribution system is settled: products are ready to be distributed, and the distribution does not go through complicated channels and facilities. Seller or supplier of the commodities will choose the online sales only if they have sufficient knowledge to the information and technology (IT).

Traditional fishery commodity has different scheme than the other commodities. Traditional fishery market structure is intervened with the existence of tengkulak and poor access to the distribution facilities, as explained before. Fishermen also have little to no IT knowledge, which makes them as main suppliers have no capability to access internet and being unfamiliar with online activities.

The problem will raise if traditional fishery e-commerce is being developed only in terms of platform like the other commodities. The possibilities will be that the purchase orders are existed but cannot be processed because the suppliers have no capabilities required. Traditional fishery e-commerce is not about the platform, but it is about how to enable the suppliers or in this case is the fishermen.

Aruna Indonesia (Aruna) which is established in 2015, started their project as a national start-up competition winner. Their proposal came to realization in cooperation with the biggest communication company in Indonesia. They aim to create a just and transparent fishery and marine products trade in Indonesia, with their business philosophy of humanism first and then modernism follow, not vice versa. Aruna's unique approach to e-commerce made traditional fishery e-commerce possible, and gave them the title as the pioneer of online trading platform for traditional fishery in Indonesia.

work in traditional fishery e-commerce. Simply because the main suppliers have little to no capabilities to conduct online sales. The fishery e-commerce in Indonesia is not working if the fishermen as the main suppliers are not enabled, which means the fishermen need to be engagement and empowered.

Aruna has an impact matrix, Aruna not only pays attention to the development of the fish but also how their impact is given. Aruna calculate changes in income per region. For example Aruna assisted fishing community in Balikpapan, which use the average income from 1.5 to 3 million, also ensure their fostered fishermen do sustainable fishing, and require fishermen to catch fish in the right way. When violated, will be expelled from the Aruna membership. Usually this method works because many rewards and savings. Aruna are also measuring the number of fishing families and how much influence. Because Aruna system is a community of fishermen are also included in the work. Aruna including in the processing and quality control stage, has the main task standardizing and digitizing certain standards for the production which are adjusted to the needs of the ends buyers.

To approach fishermen, the key is economic value when the benefits are real for them. Aruna appoint at least one person who is a local heroes / champion, whose job is to bridge between Aruna and fishing community. These local heroes are the foremost in charge of operating the Aruna application. Usually, local heroes are young people who want to advance their region. Aruna also base application development in accordance with input from fishermen who are members of the Aruna community, so that the applications are more user friendly. Aruna ensure the commitment of the Aruna fishing community through a contract mechanism, Aruna make fishermen have an attachment to Aruna Indonesia, strengthen a relationship with fishermen as a family.

V. CONCLUSION

The result of this study shows that unlike the other forms of e-commerce, Aruna as fishery e-commerce does not depend heavily on selling and marketing activities. This is because fishery sector in Indonesia has fundamental problems on the supply chain. Aruna differs from the other e-commerce because it cannot serve solely as a platform, but also to address the supply chain problems with empowerment and engagement. Thus, Aruna can ease and enlarge marine products marketing and increase the fishermen welfare as partners.

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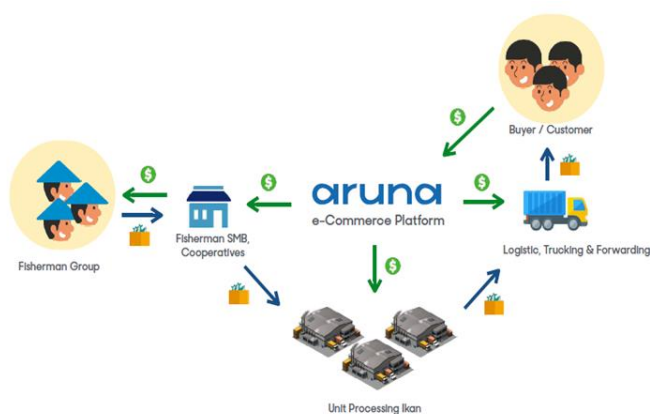


Fig. 1. Aruna platform scheme.

As explained above, the online fish trading scheme applied overseas and the common commodity e-commerce will not