Chapter 29

MONASS (Mobile Business Assistant): Smart Solution for Companion of Coastal Community Businesses in Optimizing the Utilization of Fisheries and Marine Resources Based on ST (Smartphone Technology)

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ABSTRACT
Indonesia is an archipelago with a coastline area of 54,716 km which includes the country with the longest coastline after Canada among 198 countries in the world. This makes Indonesia has a sustainable potential of fish resources reaching 6.5 million tons per year. It is unfortunate that with the large potential of fisheries and marine owned by Indonesia, many coastal communities experience poverty and live in poverty. Currently the government is working to improve the welfare of coastal communities through a variety of fisheries and aquaculture policies that are applied by counseling and outreach methods. But on the other hand, small-scale fisheries (fishermen and cultivators) businesses are now faced with the point of sale value of fishery products with their production costs. These problems make the fisheries business suffer losses. The lack of ability to manage finances, lack of knowledge and education make them unfamiliar with business management that can help their businesses to be feasible. To overcome these problems, we created a technology innovation MONASS (Mobile Business Assistant): An Android-based business analysis application that will facilitate fisheries businesses in managing businesses so that coastal communities can make managerial decisions quickly and accurately. In the application, business actors will be assisted in calculating how many aspects of the business such as the total cost, the minimum price of the product, profits, and efficiency of the business being run. The method of applying MONASS to coastal communities uses an education and lifeskill approach with efforts to improve the quality of human resources in coastal areas. With this application it is expected that fisheries entrepreneurs will be able to improve their welfare through their business.
1. INTRODUCTION

Indonesia is the largest archipelago country in the world with 17,507 islands and an area of sea waters of 5.8 million km² which has a very large diversity of marine and fisheries resources. The sustainable potential of Indonesia’s marine fish resources is estimated at 7.3 million tons per year, which are spread in Indonesian waters and waters. Of all the potential fish resources, the amount of catch allowed (JTB) is 5.8 million tons per year or around 80 percent of the sustainable potential (Ministry of Maritime Affairs and Fisheries, 2015). This makes the production of Indonesian fisheries products that are very abundant both capture fisheries and aquaculture.

With the large potential of fisheries and abundant catches, it should be able to prosper the lives of coastal communities but what happens, the economic conditions of coastal communities can be said to be low and many of them experience poverty. According to Nugroho (2015), the helplessness of Indonesian fishermen to improve their social and economic life is caused by various factors including: (1) lack of education, experience and skills, (2) lack of capital to buy fishing gear that is far more modern, (3) limitations of fishing gear and technology used as well as traditional fishing systems.

The existence of poor fishing communities due to the manifestation of socio-economic imbalance between groups who are and who are not. This can be seen in terms of educational attainment, health stage, social institutions, access to business capital, technology and marketing systems. All of these problems are serious and need to be addressed (Directorate of Coastal Community Empowerment, 2006 in Nugroho, 2015). From these problems, the solutions that have been offered are counseling, poverty alleviation programs, and coastal community empowerment programs are still reaping failure and difficulties. In addition, the costs and resources used to implement the program are less effective.

From the problems outlined, we innovated to create a smartphone technology-based financial application, MONASS (Mobile Business Assistant). From the existence of these problems the author wants to know how the output generated from the application of the MONASS application, How MONASS develops the economy of coastal communities, and What are the advantages of the potential that MONASS has in developing the economy of coastal communities. And can provide benefits, namely: For the government, can help in developing the economy in coastal communities with the existence of MONASS. For the community, it is hoped that the MONASS application will be used, which can improve the economy, knowledge education and skills. As well as for researchers, can be a new study material on the economic development of coastal communities. MONASS is an application that can help economic actors in coastal areas
both in managing the finances of the businesses they run. Only armed with a smartphone, coastal communities can use the application anywhere and anytime.

2. LITERATURE REVIEW

2.1 Socio-Economic Conditions of Coastal Communities
Normatively, coastal communities should be a prosperous society given the large potential of coastal and marine natural resources. However, the reality shows that the majority of coastal communities, especially fishermen, are still part of the community who are lagging behind. Socio-economic problems, such as poverty, social inequality, limited access to education and health, weak social institutions, and difficulties in accessing business capital and markets, are complex and interrelated problems (Roslinawati, 2013). Of course the problem must be resolved immediately given that almost 60% of the Indonesian population live in coastal areas (Baransano, 2011).

From these problems the solution that has been done is by counseling, community service, and coaching to the community. However, often these solutions are less than optimal and often fail. According to Allen (2015), constraints that often occur such as low public interest, limited facilities and infrastructure, high costs, require a long time and distance that is sometimes difficult to reach.

2.2 Use of Smartphones in Society
With the advancement of technology, making things practical and making it easier for humans to carry out activities is also related to the ease of accessing information and communication. One of the supporting technologies today is that smartphones are a great choice for the community. Apart from the relatively affordable price, smartphones also have more functions compared to mobile phones with not too many functions, other than because the needs of using smartphones tend to be lifestyle and trend (Chuzaimah, 2010).

The use of smartphones in Indonesia is increasing, given the need for technological convenience, according to data from E-Marketer Indonesia is one of the countries that has the largest growth in smartphone usage, under China and India. Indonesia can surpass 100 million active smartphone users in 2018, making it the fourth most populous smartphone user population in the world behind China, India and the United States (Millward, 2014).

2.3 Business Financial Aspects
In financial management there are several aspects that must be considered, namely as follows: 1) Cost, According to Batubara (2013), cost is the acquisition price of a sacrifice of economic resources both goods or services to get something that is a goal that is income or income either in the present or future, the classification of costs according to the basic functions of business activities / activities. Costs can also be regarded as the amount of expenditure in production activities. Costs can be divided into two kinds,
namely variable costs and fixed costs. 2) Price, According to Secapramana (2001), price is the value (value) or benefit (benefit) that is felt for an item or service. Price is a component that directly influences company profit. The specified price level affects the quantity of goods sold. In addition, the price also indirectly affects costs, because the quantity sold affects the costs incurred in relation to production efficiency. 3) Reception, According to Nurdin (2010), revenue meaning revenue is the amount obtained from the sale of a number of outputs produced by a producer or company. Revenue or revenue, is income from the sale of goods or merchandise. Total revenue or total revenue can generally be defined as revenue from the sale of goods obtained by the seller. 4) Break Event Point (BEP), According to Barusman et al. (2010), break even point analysis is the amount of output income that will equate total income with total costs, that is, the amount of output sales that will produce an operating profit of 0 (zero). So, break event point analysis is not just to find out the break-even point of sale, but it is very important because it provides information to company leaders about various levels of sales volume that can be tolerated so as not to lose, the minimum amount that must be produced, and their relationship to the possibility of making a profit according to the level of sales concerned. As for its use, the BEP is divided into two types, namely the BEP unit which functions to analyze the break-even point of the minimum product that must be sold while the BEP sales function is to analyze the results of the minimum sales (Yusuf, 2014). 5) R / C Ratio, According to Rumambi et al. (2013), analysis of R / C Ratio (Return-Cost Ratio) is one of the analyzes used to find out whether a business unit in the production process experiences a loss, break even, or profit. R / C Ratio is used as a control in doing production. So the company can avoid losses from its production activities. According to Untari (2014), the R / C Ratio analysis is used to find out the efficiency of business activities that can be determined through the comparison between the total revenue in each business with the total cost.

2.4 Business Financial Analysis
According to Sofyan (2004), in Afiah et al (2015) explains, “financial analysis is the activity of evaluating and determining the rupiah unit of aspects that are considered feasible from decisions made in the stage of business analysis.” Discussion in this financial aspect is the source and the use of funds, working capital, income, business costs, and cash flow or cash flow. Financial analysis is very important to do because it is related to financial management to produce maximum profits.

2.5 Marketing and Auction
Marketing can be defined as a social process that involves important activities that enable individuals and companies to get what they need and want through exchanges and developing exchange relationships (Bank Indonesia, 2013). According to Minister of Finance Regulation No. 106 / PMK.06 / 2013 auction is the sale of goods openly to the public with a written and / or verbal price quote that is increasing or decreasing to reach the highest price, which is preceded by the Announcement of the Auction. Whereas the Market can be defined as a place or organization that allows exchanges between buyers
and sellers. In this market, all marketing functions are needed in the job exchange process. This marketing function consists of the exchange function, physical function, and the function of providing facilities (Bank Indonesia, 2013).

3. METHOD

3.1 MONASS Application Design
The MONASS application is made with a simple and attractive design so that it is easy to understand for coastal communities, besides that we also make explanations for terms in business that may be unfamiliar to the coastal community.

3.2 MONASS Menu Display
In its use MONASS offers several menus that can be selected according to needs. The menus offered are: financial analysis, online auctions, and business education. Which we have made to facilitate coastal communities in analyzing business finances, facilitate the sale and marketing of catches online as well as a means of education and knowledge about business. So by using MONASS, coastal communities can develop their economy.

3.2.1 Financial Analysis
In the financial analysis menu MONASS provides convenience for businesses to manage the finances of the businesses they run in an integrated, integrated and systematic way. Starting from the analysis of total costs, selling prices, revenues, profits, break event points, R / C Ratio, and the results of financial analysis in which there is interpretation. Using MONASS will make it easier for users to make decisions because all financial aspects have been analyzed and calculated automatically.

3.2.2 Auction
Auction is an identifiable buying and selling activity with fishery products, the auction menu at MONASS is done online and can be accessed by everyone both domestically and abroad easily, so that it can help the ongoing market transactions of fishery products online. The purpose of this menu is to facilitate coastal communities in marketing their products and avoid the middlemen.

3.2.3 Edukasi
In this menu there is some knowledge and learning about business that is packaged in a concise and concise manner so that it can be easily understood by MONASS users, especially coastal communities. The content contained in the business education menu is the understanding of business and entrepreneurship, financial aspects of finance, prices, profits, the importance of financial analysis and management, as well as business feasibility analysis. So that this menu can be a medium of education and knowledge for coastal communities.
4. RESULTS AND DISCUSSION

4.1 Economic Development of Coastal Communities Through MONASS
The working principle of the MONASS application is to process data entered by the user whose results will be interpreted. From the results and interpretations the application users will receive managerial information from the business they are running so that managerial decision making is done on the basis of these results and interpretations.

4.1.1 Account Registration
Before using the MONASS application, users must download and install the application through the Google Play Store. After the application is installed on the smartphone the user is required to fill in user data to register his MONASS account. Information that needs to be filled out by users includes: photo, name, email address, telephone number, user id, and type of business. In the business type column, users can enter more than one business.

4.1.2 Business Analysis
The business analysis menu has five sub menus, namely total cost, number of products, price, cycle, and results. The five sub menus are divided into two stages in the form of a process to enter data and the results and discussion. The total cost, product quantity, price, and cycle sub menu are included in the process of entering data. While the results sub menu belongs to the results and interpretation stage. Before entering the business analysis sub menu, users who have more than one type of business must choose one of the businesses that they want to analyze. It is intended that the financial analysis of various types of businesses is not mixed.
4.1.3 Auctions

This auction menu provides a forum and opportunity for business actors to exchange information between business actors in various regions. Not only that, business actors (consumers) and non-business actors (consumers) can utilize this menu as a market for fishery products produced. With the auction system it is expected that business actors can obtain the best prices for the products produced. Starting with medium business actors the status of production results can be seen by all application users. Interested users can press the bargain icon by entering the nominal purchase price based on the initial price set by the manufacturer. If the producer agrees, the offer will be accepted and the transaction process will be carried out.

4.1.4 Education

The fourth menu in the MONASS application contains various knowledge and information that businesses need to know by learning online. The expectation of the existence of this Minister in MONASS application is able to improve the quality of human resources in coastal communities in terms of knowledge. Education will be delivered in several chapters. After the user studies a chapter, a quiz icon will appear. The results of the quiz will appear as a star ranking on the user profile which is the result of an educational evaluation on the MONASS application. The chapter in education can be updated according to the material that the application developer wishes to convey.

4.2 Effects of the Use of MONASS on Coastal Communities

The MONASS application has 3 main menus that have their respective uses. This application can be applied well to coastal communities who work in the field of fisheries. The business analysis menu helps coastal communities who are business actors to find out the financial condition of their business by making appropriate management decisions. The auction menu helps businesses to market products that are produced quickly and a broad marketing reach to get the best prices. While the education menu can improve the quality of human resources in coastal communities with a variety of material delivered that is equipped with an evaluation of the results of education.
4.3 MONASS Advantages in Economic Technology Development
As a solution to the failure of an ineffective extension system, the MONASS application comes with a variety of financial analysis capabilities that can help all coastal communities in each type of business. Users can manage their business well without spending a lot of money, time and energy. Only armed with a smartphone with the Android operating system, coastal communities can use various menus provided by the MONASS application. Not only that, the database of business analysis results of all coastal communities in an area can help the government in making coastal development policies well. So that the sustainability of each stakeholder will be established in the economic development of coastal communities. By using the MONASS application the user is facilitated in making business analysis reports that are required by financial institutions for capital loans.

5. CONCLUSIONS AND SUGGESTIONS

5.1 CONCLUSIONS
The MONASS application was created to assist coastal communities in developing the economy through business financial management. One of the menus provided on the MONASS application is financial analysis. The menu can make it easier for coastal communities to know all financial aspects so that business management can be done well.

The application of the MONASS application to coastal communities can be a solution to the low quality of human resources through the education menu. This menu provides a variety of material about the business complemented by evaluation. In addition, the MONASS application provides an auction menu to facilitate and improve skills in marketing products.

The MONASS application has the advantage of developing the economy of coastal communities by utilizing information technology. The existence of business analysis information helps coastal communities to manage their finances practically only by using a smartphone. This application can be used anywhere and anytime as needed. With online education can improve the quality of human resources effectively without spending much money. In addition, the online auction system enables marketing with a broad reach so that coastal communities can develop their businesses.

5.2 SUGGESTIONS
The suggestions of the process of creating the MONASS application are as follows:

1. For the Government, support is needed in implementing the MONASS application to develop the economy of coastal communities.
2. For the Community, cooperation is needed to use the MONASS application in its business activities.
3. For researchers, research is needed regarding the use of the MONASS application.
REFERENCES


