



Business Development through Literacy-Based Digital Financial Services for Agribusiness Microfinance Institutions

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Abstract

The agricultural sector plays an important role for the welfare of society. Agriculture plays a role as a producer of food, employment, and a source of foreign exchange for the country. However, the Indonesian agricultural sector still has several problems, namely: 1) Farming capital; 2) Agricultural technology tools; and 3) Marketing of agricultural products. In this regard, one solution that can solve the problem jointly is the existence of an Agribusiness Micro Finance Institution or also known as *Lembaga Keuangan Mikro Agribisnis* (LKM-A) in Indonesian. LKM-A is a liaison for the easy access of agricultural businesses to various productive resources, namely: capital, technology, and marketing. Along with the role of helping the farming community, there are also several problems faced by LKM-A itself. LKM-A has three main problems, namely 1) LKM-A's limited income because it only pivots on one business scheme, namely members' savings and loans; 2) The management system is still conventional due to lack of access to technology; and 3) Financial services from LKM-A are still limited and conventional. Therefore, this study aims to solve the LKM-A problem. Solutions as problem solvers that will be implemented in this study through theoretical and practical assistance (guidance and training) consist of: 1) Developing business schemes to increase LKM-A income and member welfare, through farming capital financing schemes, agricultural technology rental services, and digital-based marketing of agricultural products; 2) Develop digital-based business management using several supporting systems such as the Database Management System (DBMS), microsoft outlook, google spreadsheet, and Enterprise Resource Planning (ERP); 3) Develop digital financial system-based business services with digital payments through chip-based E-Money, fintech E-wallet, EDC, and QRis.

Keywords: LKM-A, agricultural technology, marketing of agricultural products, digital business management, and digital financial services

1. Introduction

The agricultural sector has an important role in human life because it functions as a provider of food, feed for livestock, and bioenergy (Vågsholm, et al., 2020). Agriculture is also a business sector that plays an important role in the national economy. Based on macro-agricultural indicators, the contribution of the agricultural category to the Gross Domestic Product (GDP) in 2020 increased to 13.7%, this can be seen in Figure 1. In addition, during the Covid-19 pandemic, the agricultural sector absorbed the largest workforce of 38.2 million people or 29.76% of the total working population (Hatfield, et al., 2020). Besides the important role of agriculture for national development, there are several problems faced by farming actors.

The results of the identification of the Indonesian Farmers Harmony Association show that three problems will still be a problem for the domestic agricultural sector for the next five years. The problems faced by farming actors are: 1) Farming capital; 2) Agricultural tools and technology; and 3) Marketing of agricultural products. In this regard, the government has actually tried to provide settlement steps with Law no. 19 of 2013 farmer institutions (Republic of Indonesia, 2013).

Solutions to agricultural problems are expected to be resolved together in a farmer institution. The institution in question is the Agribusiness Micro Finance Institution or also known as *Lembaga Keuangan Mikro Agribisnis* (LKM-A) in Indonesian. LKM-A functions as a liaison for farmers in a village group with other institutions outside of it.

Solving farmer problems requires the role of other related parties, therefore an organization in the form of an Agribusiness Microfinance Institution (LKM-A) can be a solution to increasing farmer welfare (Setiawan, et al., 2022; RetnoSetijowati & Lestari Rahayu, 2017).

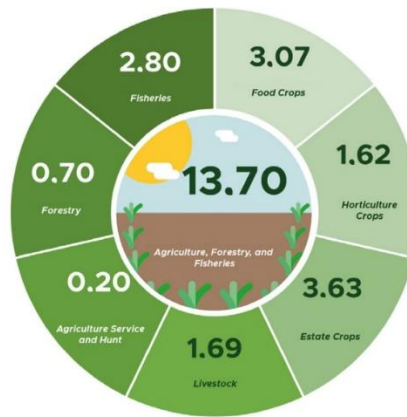


Figure 1. Agriculture Sector Contribution to Indonesia's 2020 GDP (Source: BPS Statistics Indonesia. 2020)

The existence of LKM-A is one of the solutions in financing the agricultural sector in rural areas because it has a strategic role as a link in the economic activities of farming communities. LKM-A also plays a role in strengthening farmer institutions in agribusiness development which cannot be separated from farmers' weak access to various productive resources, namely: capital, technology, and marketing (Anggriani, et al., 2019).

Along with the role of LKM-A to help farming communities, there are several problems faced by LKM-A itself. According to the Agricultural Research and Development Agency of the Ministry of Agriculture, the fundamental problem of LKM-A is that the business system tends to be stagnant. The business system of LKM-A in general only revolves around savings and loans with the conventional system. Supposedly, LKM-A can develop far more through innovation in other business schemes (Tan & Mailena, 2021; McIntosh and Mansini, 2018). Business schemes that can be developed include farming business financing, supplying agricultural production materials, procuring modern agricultural technology, and becoming a forum for marketing agricultural products. Some of these business scheme developments will not run well if done with a conventional system, due to the limited human resources owned by LKM-A. Therefore,

The development of digital system-based LKM-A can have a broad impact on the business schemes being carried out. Digital systems in financial services can increase business opportunities for LKM-A, for example, by becoming an online marketing forum for community agricultural products to increase the competitiveness of agricultural products. Then, digital systems can facilitate access to modern agricultural technology for farming communities to improve the quality of farming production (Kumar, 2009; Brune, et al., 2016). In addition, digitizing the system can improve the quality of LKM-A's business. Therefore, with this business scheme it is hoped that LKM-A can become a financial institution that has independent capital, and can affiliate with investors for the development of a more massive business scale.

2. Literature Review

2.1. Agricultural Technology

Agricultural technology is needed in an effort to increase the quality and quantity of production. The application of technology in both pre-harvest and post-harvest activities is decisive in achieving harvest adequacy both in quantity and product quality. The technology used depends on the needs of farmers for their commodities (Amer, et al., 2020). Each agricultural commodity already has its own developing technology. An example for rice plants is a transplanter for rice cultivation which increases productivity by up to 30%. In addition, for the fertilization process, you can use a manure spreader as an automatic organic fertilizer sowing tool. An example in the livestock sector is an automatic livestock feeder that adjusts the level of fulfillment of livestock nutrition. The description of this technology can be seen in Figure 2.



Figure 2. Agricultural Technology Tools

LKM-A can be a link for rural farmers' access to modern agricultural technology. LKM-A can provide agricultural technology rental services, so that the farming community can easily use this technology at an affordable cost. The system used for the rental service is a profit sharing system from harvesting. Therefore, this business system will benefit farmers and LKM-A because it does not burden either party.

2.2. Digital Marketing of Agricultural Products

The agricultural product marketing system is closely related to the price formation process at the farmer level and the consumer level. If farmers only sell agricultural products to all collectors, then the selling price of these commodities will be low. One solution to this is through direct marketing to primary consumers through digital marketing (Reddy, 2021). In this research activity, LKM-A is expected to be a liaison for the marketing process of agricultural products from the people of community to primary consumers. The marketing process can be done through several marketplaces. Nowadays, there are many marketplaces that provide digital marketing for agricultural products, such as TaniHub, SayurBox, PanenID, etc. The description of the agricultural product marketplace can be seen in Figure 3.



Figure 3. Marketplace for Digital Marketing Tools for Agricultural Products

2.3. Digital Financial Services

Digital financial services are payment and financial service activities that use digital technology facilities such as cellular or web through third parties. Third parties can be bank or non-bank institutions that have received official permission or licenses to open digital financial services (Ozili, 2018). At present, many digital payment instruments have developed. Examples of these digital payment instruments are chip-based E-Money, fintech E-wallet, EDC, QRis, etc. The description of the digital payment system can be seen in Figure 4.



Figure 4. Digital Payment Service Instruments

3. Methods

Broadly speaking, this research was carried out in two major methods, namely theory and practice with many activities, namely, 3 times of theoretical assistance and 3 times of practical assistance.

3.1. Theory Assistance

Researchers will provide an overview of the theory related to the development of the LKM-A business scheme which is divided into 3 forms of assistance. The form of business scheme assistance consists of: 1) Farm business financing scheme; 2) Farming technology service rental business scheme; and 3) Scheme of agricultural product marketing business. Each scheme will be explained in detail for the initial needs to the business activity process in the form of mentoring activities.

3.2. Practice Assistance

Researchers will provide practical assistance directly to LKM-A. This practical assistance is carried out in the form of training and direct realization. This assistance is divided into 3 activities, namely: 1) Payment system digitization training; 2) Business management digitization training; 3) Realization of digital financial service-based LKM-A business activities.

4. Results and Discussion

4.1. Payment System Digitization

In the current developments in the millennial era, changing people's lifestyles in general, namely the level of practicality of work, is very important. Changes in people's lifestyles and technological innovations have driven the development of non-cash payment systems. The payment system is a set of rules, institutions and mechanisms used to carry out transfers of funds, in order to fulfill an obligation arising from an economic activity. The Payment System coincides with the birth of the concept of money as a medium of exchange or intermediary in goods, services and financial transactions. In principle, the payment system has 3 permit stages, namely authorization, clearing, and final settlement (Tan & Disemadi, 2021).

Digital payments are payments based on technology systems. Digital money payment system, stored and received in the form of digital information and the transfer process is carried out through electronic payment instruments. The differentiator of the payment system is that traditional payments are made via cash, check or credit card, while digital payments are made using certain software, payment cards and electronic money. The main components of the digital payment system include: money transfer applications, network infrastructure, rules and procedures governing the use of the system (Linggadjaya, et al., 2022). The description of the digital payment system that can be used is presented in Figure 5.

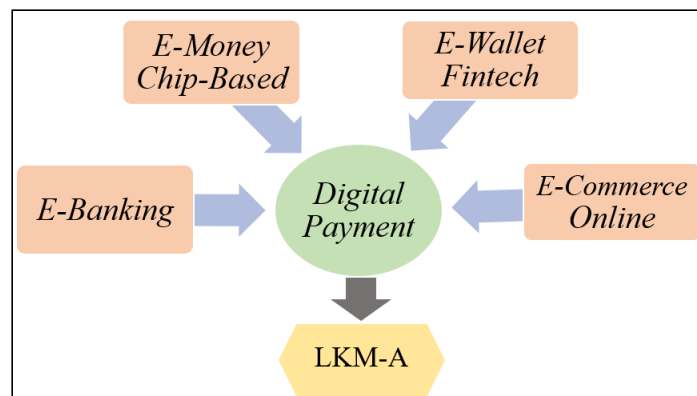


Figure 5. LKM-A Digital Payment System Scheme

4.2. Digitalization of Business Management Systems

Digitalization of business management systems can be generalized as a Management Information System (MIS). SIM is a computer-based system that makes information available to users who have similar needs. SIM users consist of formal organizational entities, companies or their subsidiary sub-units. The information provided by SIM explains the company or one of its main systems in terms of what has happened in the past, what is happening, and what is likely to happen in the future (Tutupary & Aldianto, 2014). SIM will generate this information through the use of software (software). The software will function to make periodic reports and special reports. Periodic reports are coded in a programming language and prepared according to a certain schedule. Special reports, which are often referred to as ad hoc reports, are made in response to an unanticipated information need. Today's database management systems have features that can quickly generate reports in response to requests for certain data or information. The description of the digital LKM-A management system can be seen in Figure 6.

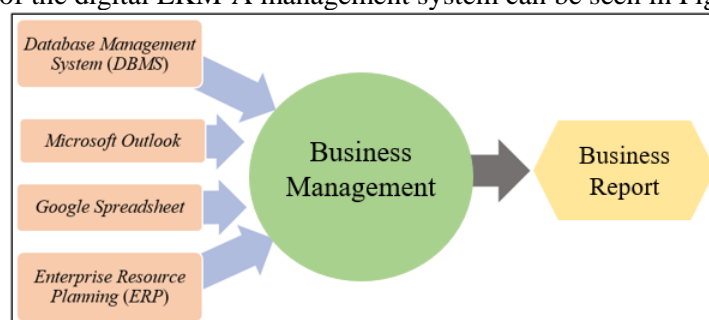


Figure 6. Schematic of LKM-A Business Management Digital System

4.3. Digitalization of the Marketing System

Digital marketing is a marketing practice that uses digital distribution channels to reach consumers in an effective, personal and cost-effective way. Marketing activities are carried out intensively using computer media, both through product offerings, payments, and delivery. In the digital marketing system, there is a strategy that is commonly used, namely E-Marketing Strategy. This E-Marketing strategy includes a form of marketing focus on 4P terms and management relationships to achieve business goals. The 4P term in question is Product, Price, Place, and Promotion (Batlajery & Alfons, 2021). These marketing elements are formed in a digital system strategy. The use of digital technology today is very diverse with features that make it easy for users. The description of the digital marketing system for LKM-A can be seen in Figure 7.

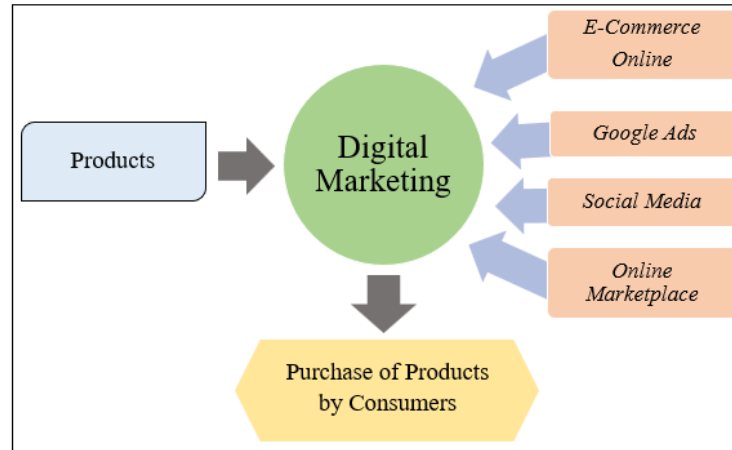


Figure 7. LKM-A Business Digital Marketing System Scheme

5. Conclusion

Limited financial services and conventional LKM-A can be developed with digital financial services-based literacy. This research has developed digital financial services as a step to accelerate access to the needs of farming communities. At present the need for farming materials such as seeds, fertilizers, to cultivating tools that need to be purchased by farmers from outsiders must experience problems with access to payment which requires payment by bank transfer account. Therefore, LKM-A can become a liaison between farmers and external parties providing farming materials, for easier access to payments, namely through digital financial services. So that farmers only need to process through the LKM-A system, then LKM-A will forward payments with an integrated digital financial services system to the intended third party.

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