

Empowerment of Kapuk Craftsmen Group by Establishing Cooperatives and Optimizing Integrated E-Commerce Applications in Jangur Village, Probolinggo Regency

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Abstract: Jangur Village is a village located in Sumberasih district, Kab. Probolinggo. The majority of the population make a living as kapok farmers and craftsmen. In Jangur village there are several problems, among others: Lack of types of employment, low education level, small entrepreneurship development of the community is not optimal. In Jangur Village most of the people work as kapok craftsmen, but the processing is on a small industrial scale and carried out partially. Some of the leading handicraft products are mattresses, pillows and bolsters. To improve the economy of the community, in 2018 the proposals carried out community service activities and focused on establishing kapok craftsmen groups. In the service that has been done, the solutions offered are diversification of kapok processed products and processing of kapok seed waste. Jangur village has potential community resources and potential raw material resources. Raw materials for kapok are found in the vicinity of Jangur Village and abundant. After the formation of kapok craftsmen groups began to emerge some new problems, namely the poor management of kapok craftsmen and marketing group partners who were not done well. The issue arose because there was no management capable of managing production and finance well. Existing problems also cause income gaps among kapok craftsmen because the production division is not evenly distributed. Seeing the potential and problems of the kapok craftsmen group, a cooperative was established to improve the financial processing system and production management. To increase revenue and increase orders, it is considered integrated E-commerce. Marketing media includes website media and social media. Collaboration of a support team that has a background in economics and agriculture is needed to develop "Kampoeng Kapuk Jangur. Proposers also have a lot of experience in managing and developing Micro small and medium enterprises.

Index Terms: E-commerce, Cooperative, Kapok.

I. INTRODUCTION

Jangur Village is a village located in Sumberasih district, Kab. Probolinggo. The majority of the population work as kapok farmers and craftsmen. Kapok fruit is processed into pillows, bolsters and mattresses. In Jangur village there are several problems, among others: Lack of types of employment, low education level, small entrepreneurship development is not optimal. In Jangur Village, almost all people process kapok, but the processing on a home-scale industry and its business is done partially. The village of Jangur saves the potential for great human resources where most of its people work as kapok craftsmen. Kapok raw materials are found around Jangur village and the stock is always available throughout the year. Product sales are carried out directly to consumers around probolinggo district.

In 2018 researchers conducted community service activities and focused on establishing kapok craftsmen groups [1]. The solution offered is diversification of kapok processed products and processing of kapok seed waste. After the formation of kapok craftsmen groups began to emerge several new problems, namely poor production management, poor financial management and marketing methods that have not been effective. Poor management can be seen from the uneven distribution of production between kapok craftsmen. Quality standards for products produced by each group of craftsmen have not yet been determined. Production division is only carried out origin without considering the factors of effectiveness and efficiency. Financial management is also a major factor where the craftsmen are in trouble to get business capital. The benefits obtained are only shared with members without good financial management. Marketing problems are also a major concern because so far sales have only been done in conventional ways. Looking at the potential and problems that exist, the cooperative was initiated to solve financial problems and product management. in previous studies researchers also developed a hosting panel that is useful for developing website-based applications [2]. The implementing members of the community service program are researchers who have different scientific backgrounds. the first research member is an expert in economics, the second member is an expert in agriculture. Each member has experience in developing small and medium businesses [3][4].

II. COOPERATIVE

Kapok craftsmen cooperative was established to solve financial management problems and production management for partners. Cooperatives formed in charge of managing partner income and expenditure. The cooperative also functions for the savings and loan process. Product management carried out through cooperatives, namely managing product orders that enter and managing the profits obtained [5]. The expected output of this solution is the establishment of kapok craftsmen cooperatives and the formation of a cooperative management structure. the cooperative was formed with 10 members of kapok craftsmen and had the same commitment in developing the cotton business in Jangur Village. cooperatives formed are not legal entities but concepts that are used in running partner businesses. The concept of cooperative is used because it has a philosophy of mutual cooperation and togetherness. It is expected that the development of cooperative concepts can also improve partners' soft skills in managing and marketing products.

III. E-COMMERCE

Electronic commerce as: "The process of buying and selling goods electronically by consumers and from company to company through computerized business transactions "[6]. From this definition, there are three main points in electronic commerce is first, there is the process of both sales and purchases electronically. Second, there are consumers or company. Finally, network usage computer on-line to do business transaction Companies use e-commerce on various levels. Some are just use e-mail for certain sections, e.g. it only applies to sales. But some are using pages the web to display company profiles and its products. Some companies even using e-commerce in an integrated way for all transactions, be it a booking, payment until delivery of the product [7]. This can all be done, especially in selling software can be sent electronically over a network Internet. In terms of the magnitude of business transactions, the internet will play an increasingly important role in the future because more and more its users. e-commerce has a very important role in increasing sales of a business [8]. Marketing of kapok diversification products, which so far have only been sold around Bondowoso district at low prices, can be marketed out of the district easily using the e-commerce platform. In this research marketing utilizes social media and e-commerce systems. Social media used is intagram because it has a large number of users. E-commerce systems are developed based on the needs and situations of partners so that they are easier to use and have features that partners really need to market their products.

IV. METHODOLOGY

Based on the description of the solutions to the above problems, we arrange the steps to be taken so that the objectives can be achieved. The preparation of work steps is prioritized in solving urgent problems can seen in figure 1

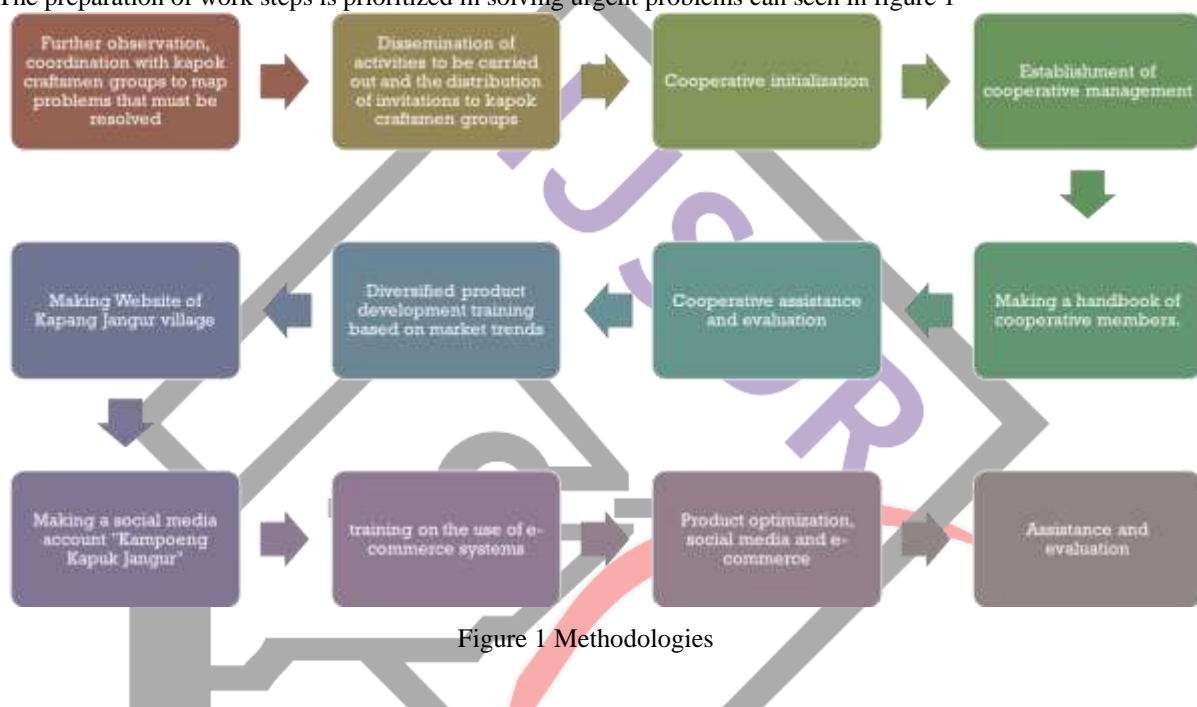


Figure 1 Methodologies

1. Further observation

Follow-up Observation activities in the field aim to get information about partner issues. coordination with partners is done by conducting group discussion forums to equalize perceptions about the outcomes of community service programs. Follow-up observations can be seen in Figure 2



Figure 2 Follow-up Observation Activities

2. Socialization of community service activities.

Socialization is an activity to convey what programs will be carried out during the service period. Details of the activities can be seen in the method implementation chapter. An effective way to develop the cotton industry in the village of Jangur is to develop the village as a center for producing cotton crafts in Probolinggo. Discussions and socialization were held between proposers, partners, suppliers, representatives of the population and village officials. The discussion was held to socialize the concept of community service. Socialization of community service activities, namely: Cooperative initialization and e-commerce optimization. The results of the socialization activities become a reference in carrying out the work program

3. Cooperative initialization

Cooperative initialization is carried out by holding open meetings between groups of artisans, village officials and cooperative management. This meeting was held to equalize the perceptions and goals in establishing a cooperative. This activity will discuss in detail the cooperative model that is suitable for application. Documentation of the formation of cooperatives can be seen in Figure 3



Figure 3 cooperative formation activities

4. Establishment of cooperative management

The next stage after the initialization of cooperatives is the formation of cooperative management. The management of the cooperative is a resident of the Jangur village community, Sumberasih District, Kab. Probolinggo who works as a kapok craftsman and has a commitment to develop a group business. Cooperative management consists of representative partners, village officials as supervisors of cooperatives and cooperative management [9]. Photos of the formation of cooperative management can be seen in Figure 4



Figure 4 Establishment of Cooperative Management

5. Making a handbook of cooperative members.

Making a handbook for cooperative members about the rights and obligations of the kapok craftsmen group. This handbook is an explanation and procedure for organizing cooperatives. In this handbook also explained the procedures for cooperative-based financial processing.

6. Cooperative assistance and evaluation

Product diversification training is conducted to increase the selling value of cotton products. Some of the diversification products produced are baby pillow products. Baby pillow products can be seen in Figure 5



Figure 5. Baby Pillow Products

Examples of processed diversification products in the form of seat cushions can be seen in Figure 6



Figure 6. Sitting Pillow Products

To increase the appearance and exclusivity of the product, stickers and labels are used on the product packaging. It is hoped that the use of this label will also differentiate products made by Jangur Village from products from other places. Product labels can be seen in Figure 7



Figure 7. Kapok Processed Product Label

- 7. Diversified product development training based on market trends
- 8. Making Website of Kapang Jangur village

The e-commerce system prototype is based on user input, if the user has agreed to the prototype, the system development process will continue in the next stage. If it doesn't meet the needs of the user, the prototype must be updated first. The device development method used is the prototype model. The prototype model used can be seen in Figure 8

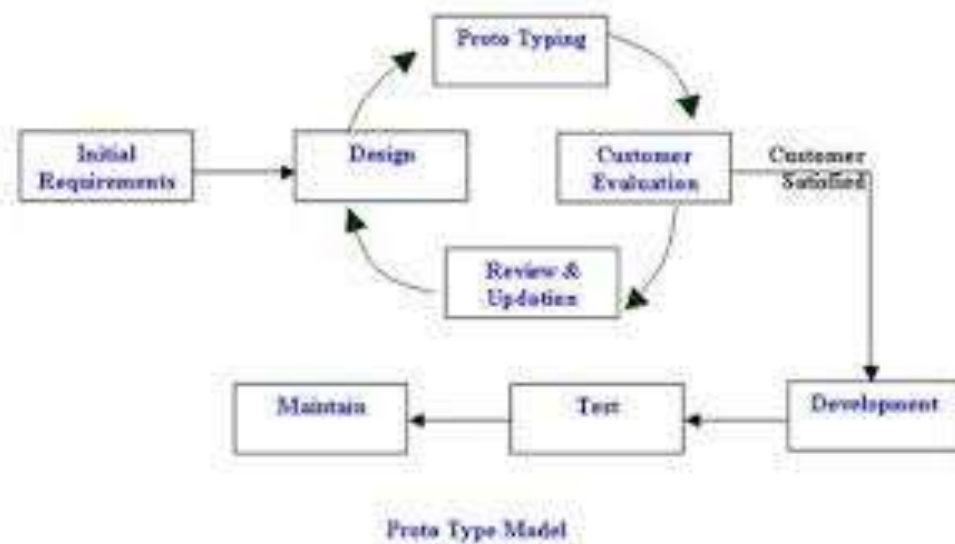


Figure 8. Flowchart of Prototype System Design

This model was chosen because it is in accordance with the conditions and problems of partners who are new to information technology so that if there are improvements it can be handled immediately without the need to design from the start. The SDLC prototype stage starts from the initial requirement, followed by a looping process consisting of design, prototyping, customer evaluation, review and updating [10]. After the customer agrees, it continues with the Development, Testing and Maintenance process.

The next stage is the provision of facilities and equipment used for the development of integrated e-commerce systems. Equipment needed in making kapok jangur website according to the budget funds that have been made and using information and data obtained. The website can be accessed at kapukjangur.id. Website appearance can be seen in Figure 9



Figure 9 Kapok Jangur Website

9. Making a social media account "Kampoeng Kapok Jangur"

The social media account used is Instagram. Instagram was chosen because it has an increasing number of active users. Instagram is also the most popular social media today. The social media account of Instagram Kampoeng Kapok Jangur can be accessed at [@kampoengkapukjangur](https://www.instagram.com/kampoengkapukjangur)

10. training on the use of e-commerce systems

The training was carried out by inviting the cooperative craftsmen and management. In this training explained about the use of website-based applications, management of Instagram social media and the use of existing marketplaces (Bukalapak, Tokopedia and Shopee) [11]. Photos of E-Commerce training can be seen in Figure 10



Figure 10 Integrated E-Commerce Training

- 11. Product optimization, social media and e-commerce
- 12. Assistance and evaluation

The kapok craftsmen group is expected to be able to actively participate in supporting the smooth implementation of activities [12]. The expected form of participation is to attend a whole series of activities, starting with counseling, training, and mentoring activities. This community service program is a continuation program of community service activities that have been carried out by the previous proposer. After the community service activity ends, the proposer will continue to coordinate with partners so that what has been initiated can develop and continue. It is hoped that after the community service program, the kapok craftsmen group can manage their business independently and professionally. The advantage of "Kampoeng Kapuk Jangur" branding is not only felt by the kapok craftsmen but all elements of the community in the Jangur village.

V. RESULT AND DISCUSSIONS

based on the observations and implementation of the cooperative system, a significant increase in soft skills was obtained. Increased partner soft skills in the form of: increasing awareness in developing businesses in the form of cooperatives, increasing the amount of diversification of products produced and increasing the ability of partners in marketing products. Based on observational data, it can be seen that a comparison of the types of products that can be produced increases from 15 products to 30 products. Data on increasing the amount of product diversification can be seen in Figure 11

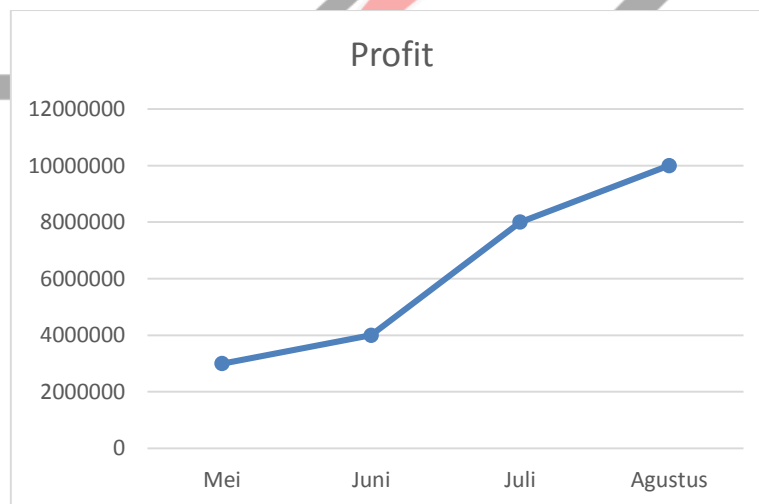


Figure 11. Graph of Increased Sales

Increased partner soft skills in terms of marketing increases this can be seen from the ability of partners to use the e-commerce system. Based on the marketing results for 3 months, the average sales turnover of partner members increased from 3 million per month to 10 million per month. In more detail the increase in partner turnover can be seen in Figure 12

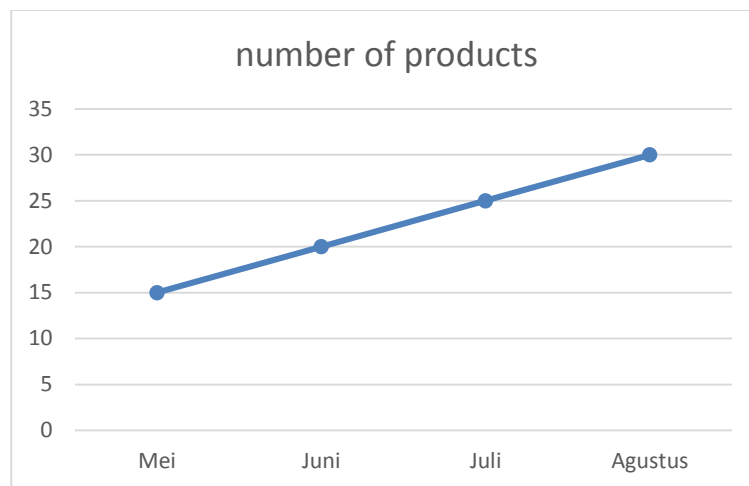


Figure 12. Graph of Increasing Number of Products

The e-commerce system was developed using the prototype live cycle development software. With the prototype user method in this case the partners can provide input to the developed system. When developing the system, it was done 2 times to improve the prototype. Features that get improvements are payment features and product management features. Based on input from the user the payment feature only accommodates proof of payment so partners can check whether the payment has been made correctly. Product management features have also improved, that is, each partner can enter criteria and a large number of photos so as to convince consumers to buy partner products.

VI. CONCLUSIONS

Based on the results of observations and implementation of programs that have been run, it was found that the partners' soft skills improved both in terms of product management and product marketing. The formation of cooperatives makes a significant contribution to partners so that they are more structured in managing products and distributing them to each member of the partner. The role of the cooperative system also increases the brush of tolerance and mutual cooperation between each member. The integrated e-commerce system has been successfully implemented so that it simplifies the process of product management and marketing. Based on the results of tests conducted over 3 months, the partner's revenue has increased significantly because marketing has reached many places in many cities. Marketing constraints that have been experienced so far can be overcome using an integrated e-commerce system.

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REFERENCES

- [1] Auliya Y.A., Baihaqi Y., and Fadah I. 2018. Soft Skill Improvement of Kapuk Craftmen Through Diversification and Utilization of Waste With Branding "Kampoeng Kapuk Jangur" Using SWOT Analysis. *International Journal of Scientific Development and Research (IJSDR)*, Vol 3, No 11, hal 403-406
- [2] Auliya Y. A., Nurdiansyah Y., and Wulandari D.A.R. 2018. Performance Comparison of Docker and LXD With ApacheBench. *Journal of physics: Conference Series*, Vol 1211, Conf 1.
- [3] Yuswanto I. B., Bhayangkara W.D., Fadah I. 2017. Performance Improvement Strategic Home Based Manufacturer Tahu and Tempe Groups Based in District of Jember. *International Journal of Scientific & Technology Research*. Vol 6, No 4, Hal 23-27.
- [4] Yuswanto I. B., Bhayangkara W.D., Fadah I. 2016. Identification of Problems and Strategies of The Home Based Industry in Jember Regency. *International Conference on Food, Agriculture, and Natural Resources (IC-FANRES 2015)*.
- [5] Mutiarni R. 2017. Implementasi Electronic Data Processing Pada Koperasi Wanita. *Jurnal Riset Ekonomi dan Bisnis*. Vol 12 No 2)
- [6] Laudon, J., dan Laudon, K. C. 1998. *Essential of management information system*. Prentice Hall. New jersey
- [7] Celestino, M. Choosing a third-party logistics provider. *Worlds Trade*, 12, 7 (1999), 54-56
- [8] Setyowati T., Fadah I. 2016. Differentiation Competitive Strategy in Winning Smes Advantage at Creative Industry in Jember. *International Journal of Scientific & Technology Research*, Vol 7, No 2, Hal 168-169.
- [9] Alannita N. P., Suaryana I. G. N. A. 2014. Pengaruh Kecanggihan Teknologi Informasi, Partisipasi Manajemen, Dan Kemampuan Teknik Pemakai Sistem Informasi Akuntansi Pada Kinerja Individu. *E-Journal Akutansi Universitas Udayana*. Vol 6, No 1.
- [10] A Research Study on Importance of Testing and Quality Assurance in Software Development Life Cycle (SDLC Models).
- [11] Gaol C. J. L. 2008. *Sistem Informasi Manajemen Pemahaman dan Aplikasi*. Grasindo. Hal 1- 426
- [12] Hatsari F.K. 2014. Evaluasi Sistem dan Prosedur Penyaluran Kredit Konsumtif Dalam Upaya Mendukung Pengendalian Intern pada Koperasi (Studi Kasus Pada Koperasi Karyawan Primkoppos Kota Malang. *Jurnal Administrasi Bisnis*, Vol 11 No 1)