



Optimizing the Potential of the Beads Center of Sumberlesung Village, Jember to become an "Export Village Center" as Integrated Digital ERP System (Si Lesung)

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ABSTRACT

Sumberlesung Village is a village that is administratively located in Ledokombo District, Jember Regency. One of the most famous potentials of Sumberlesung Village and continues to be developed is the handicraft industry in the form of beads, which are exported abroad. But in reality, even though it has been exported to various countries, it turns out that the existence of this beading craft is still not well known by the local community and needs to be expanded further abroad. So that there is a need for improvement and development in terms of segmentation and marketing locally and abroad, this happens because the bead artisans in Sumberlesung Village have not yet marketed their products digitally so an innovation is needed that can integrate their products with technology. Departing from the above problems, the author plans an idea in the form of village empowerment by establishing a community in Sumberlesung Village equipped with software, namely ERP (Enterprise Resource Planning) which is integrated with the website. The research method used is qualitative research with a A.D.D.I.E. The expected target of this research is that the bead craftsmen are members of a community who can market digitally in export and import activities as well as the craftsmen who understand the concept of technology and ERP software systems.

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1. INTRODUCTION

Sumberlesung village has one of the most well-known potentials and until now continues to be developed in the handicraft industry in the form of beads.(Seftiyana & Angin, 2022). These beaded crafts are made by the community independently (dominated by housewives) and are then exported to foreign countries such as the Netherlands, France, America, and Thailand. But, even though it has been exported to various countries in the world, it turns out that the existence of this beading craft is still not well known by the local community. So it is necessary to increase development in terms of national and international marketing. This happens because the bead craftsmen in Sumberlesung Village have not marketed their products digitally, they only rely on word-of-mouth and still depend on distributors who help market their products, whereas nowadays, especially in the Era of Society 5.0, people's behavior has changed. be all technology.

The creative industry players of bead craftsmen in Sumberlesung Village, tend to need innovation to integrate their products with efficient technology to meet the needs of their business activities. However, the ability of the human resources of the creative industry players for beading craftsmen is still very lacking and technologically stuttering. Especially in operating and creating digital-based software to meet industrial needs in the era of society 5.0 as it is today. So it takes assistance from competent parties who have more capabilities in creating and developing digital-based software that can help increase productivity. The use of technology by consumers through online stores and websites greatly affects business development, if it is not addressed properly by traditional traders, especially UMKM (micro, small and medium enterprises), the longer the sales will decrease because they are less competitive with online stores, especially since the market share includes international.(Supriyanto & Hana, 2020).

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Departing from the problems above, the author plans an idea to achieve the empowerment of Sumberlesung Village by donating a company/industrial resource planning software or commonly known as ERP. "Enterprise Resource Planning" is a term originally coined in 1990 by The Gartner Group to describe the next generation of Materials Requirements Planning (MRP) software. The goal is to integrate all aspects of a business enterprise under a single application software suite. The definition of ERP will be expanded to cover almost all types of large integrated software packages. (Mugahed Ahmed Abdullah & Research Scholar, 2017) This ERP will update old stand-alone computer systems such as finance, human resources, production, and warehouse functions and break them down into modules that run under one program. (Demir et al., 2020). With the presence of this ERP software, it aims to improve the quality and productivity of the management and marketing of the creative beading industry in Sumberlesung Village, Ledokombo District, and Jember Regency. The software created is aimed at internal development aiming to improve the quality of management of industry players starting from the preparation of financial reports, financial statement analysis, consumer data analysis, storing consumer databases, storing databases of the available stock of goods, recording the entry and exit of goods in the industry, record of every transaction of buying and selling, and seeking funds from external parties. Furthermore, external development aims to increase marketing both in the national and international classes.

UMKM actors with beaded handicraft products located in Sumberlesung village, Ledokombo District, Jember Regency with export destinations to Europe, the United States, and Asian countries, should be categorized as UMKM that get KITE facilities because in the production process they import raw materials with the ultimate goal for re-export. One of the facilities provided by the government to IKM is the Ease of Import for Export Destinations (KITE). Based on PMK Number 110/PMK.04/2019, Ease of Import for Export Destinations for Small and Medium Industries, hereinafter referred to as KITE IKM, is the facility in the form of exemption from Import Duty and Value Added Tax (PPN) or Value Added Tax and Sales Tax on Luxury Goods (PPnBM). payables are not collected on the import and/or entry of goods and/or materials for further processing, assembly, or combination with other goods to be exported. Simply put, KITE IKM is a facility or facility in the form of fiscal and procedural offered by the government, in this case by the Directorate General of Customs and Excise (DJBC) to increase the volume of Indonesian exports. (Muchtar & Suganda, 2021).

However, the problem is that UMKM in Sumberlesung village have no history of financial data in import and export activities. Export is a commodity in the form of goods and services produced in one country and sold to other countries. Exports make up international trade. Exports are very important for the modern economy as they offer more markets to people and companies for their goods. (Hodijah et al., 2021). The next problem for business actors is the association of beading craftsmen in Sumberlesung Village, Jember Regency where the bead craftsmen do not have comprehensive education related to the process of managing the beading craft business to be ready to compete in the international market. The bead craftsmen who are members of this association are still confined to the mindset of producing fast-selling products without paying attention to

the durability of product quality, as well as an added value to support the long-term sustainability of the business.

2. LITERATURE REVIEW

2.1 E-commerce

E-commerce is a technology that is a basic need of every organization engaged in trade. E-commerce is a way for consumers to be able to buy the desired goods by utilizing internet technology. The use of e-commerce technology can be felt by consumers (business to consumer) as well as by business people (business-to-business). (Atun Mumtahana et al., 2017). E-commerce in Indonesia is now very popular in various circles of society. Its existence also has a large positive influence on economic growth in Indonesia and has become a solution for SMEs and SMEs to rise and compete during the challenges of facing the COVID-19 pandemic. (Sahanaya & Gabriella Agus, 2021)

2.2 Enterprise Resource Planning

Enterprise Resource Planning (ERP) is an integrated computer-based system designed to process company transactions and facilitate integrated and real-time planning, production, and customer response. Companies that implement ERP can improve innovation performance and the quality of their performance which will have a direct impact on company performance, especially in increasing the accuracy of information between departments in the company, responding to customers faster, and helping companies in making decisions and using resources well. In addition, the existence of ERP will minimize the costs incurred by the company, such as supervision and maintenance costs, thereby increasing company efficiency. Another function of ERP is as an option to utilize several systems in managing companies and businesses, ERP functions as a source of company information that combines traditional company systems and operations in one integrated database. (Nawawi & Yunia, 2021). However, ERP systems require complex technology infrastructure and coordination within the company. ERP system failures can occur during implementation, integration problems, lack of funds, project scheduling mismatches, and user resistance to change. (Febrianto et al., 2022)

2.3 Export

The definition of export is the activity of removing goods from the Indonesian customs area to foreign countries by the applicable laws and regulations. The export process in general is the transportation process to legally remove goods or commodities from one country to another, in general, export is a trading process or the activity of removing commodities from within the country to import them to other countries. Exports of goods on a large scale generally require the intervention of customs in the sending and receiving countries. Exports are an important part of international trade, the opposite of which is imports. The territory of the Republic of Indonesia includes land, sea, and air areas as well as places in the Exclusive Economy Zone (EEZ). Export is the process of transporting goods or commodities from one country to another. (Nautika, 2020)

2.4 Creative Industry

The creative industry is currently getting great attention from both the government and the community. The

government's seriousness in increasing the development of the creative economy is marked by the change in the nomenclature of the ministry from the Ministry of Culture and Tourism to the Ministry of Tourism and Creative Economy, as well as the establishment of the Creative Economy Agency through the Presidential Regulation of the Republic of Indonesia Number 6 of 2015 concerning the Creative Economy Agency. for the Indonesian economy. The existence of the creative industry in Indonesia has a lot of potentials that can be developed. According to Indonesia's Creative Industry Development Plan, there are 14 sub-sectors included in the development of creative industries, namely advertising, architecture, art market, crafts, design, fashion, film (video maker), interactive games, music, and performing arts, printing, computer services, radio, television, research, and development. (Asfi & Daulay, 2018).

3. RESEARCH METHOD

The research method used in writing this work is a qualitative method with inductive analysis, which includes the actual collection, compilation, and description of various information and data. The data and information that have been obtained will later be interpreted in the form of analysis and presentation so that the research objectives can be achieved. The research began by digging up data and information from informants who have important positions or roles in the development of the creative industry business of Sumberlesung Village, especially the business actors in the center of beads in this village.

Model analysis A.D.D.I.E. was also used in this study as a basis for designing ERP applications for the creative industry of the Beads Center of Sumberlesung Village. Model analysis A.D.D.I.E. is a model that is considered more rational and more complete than other models. At this stage, recording is also carried out and ensuring what functions you want to display in the application that is built and after that, an application design is formed that is made according to the needs of the user. After making the application design, the researcher will analyze the creative industry business actors at the Sumberlesung Village bead center, whether the design built is to their expectations, then proceed to the application development stage in the form of program writing, until after that the application is built and application maintenance is carried out.

According to Branch (2009), the steps for developing media technology with the A.D.D.I.E. model. that is:

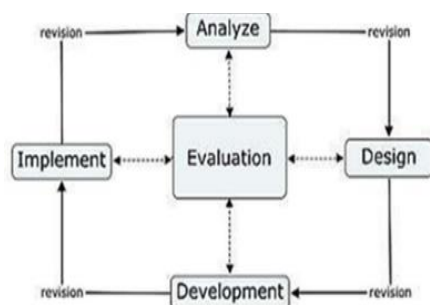


Figure 1. Model A.D.D.I.E.

The following are 5 stages of the development method used according to the A.D.D.I.E method, as follows:

- 1) Analyst, Analysis at this stage, researchers analyze what problems are behind the emergence of the development of this technology media. After analyzing the problem, the researcher needs to analyze the feasibility and requirements of the technology to be made;
- 2) Design, in this stage, the researcher will realize the things that have been analyzed. Researchers will make what is needed. The steps at this stage are as follows: Prepare a map of the needs of technology users to be made, Determine the standardization of content to be included in the technology, and Mapping Content Developer, which is adjusted to the circumstances and user understanding;
- 3) Development, At this stage, the application will begin to be developed by researchers according to a predetermined design, after which the application that has been made will be validated by application experts and media experts. If the application made has not reached the positive criteria, the researcher will revise the application according to suggestions from mobile application experts and media experts. After the application is said to be positive, the researcher will try it out on the market in terms of validation with users.
- 4) Implementation, At this stage, a trial application will be held for users, namely the owner of a beading center business in Sumberlesung Village, Jember. Implemented applications that have been developed in real situations, namely in a busy business environment. During implementation, applications that have been developed are applied to actual conditions. The application referred to in this case is a management application in the form of an ERP system; and
- 5) Evaluation, Evaluation is carried out in the form of formative evaluation. Formative evaluation is carried out through user responses after using the application for a certain time or having made certain transactions. The evaluation results are used to provide feedback to the application users.

4. RESULT

The solutions offered to support the process of accelerating the understanding of beading craftsmen about business digitization are in several ways. In the first step before socializing, the author will form a community that consists of beads and youth business actors in Sumberlesung Village. This community aims to manage businesses and assets as well as a place for business actors to exchange ideas for the advancement of products in the village. In this case, the author's role is to provide socialization or briefing to youth groups related to the use of ERP software in the business world. On the other hand, the author also plans to form a community with an organizational structure that will facilitate the division of the job desk in operating the software. The organizational structure of the youth organization consists of a chairman and 4 (four) teams, including, the IT division which plays an admin role in the operation of the ERP software, and the production division plays a role in all production processes to become finished products, the finance division plays a role in regulating and managing finances, the marketing division role in marketing the product.

The second step taken to help bead craftsmen who are members of the community is to master technology. What needs to be done is to introduce and explain how to use the right technology in business. Provides a view of how big the benefits

are when running a business using technology rather than a manual system. Then, conduct training on the basic material of the ERP software program, namely how to operate it in their business. With ERP software, the working principle of community resource planning can simplify workflows and automate the entire sales process, stock provision, sales data, and distribution. For example, when ERP software receives an order from a buyer, it will automatically provide information to the distribution center that is most efficient in fulfilling orders on time.

The ERP software offered also includes a website that acts as e-commerce to market beaded products from rural communities. In addition, the website also contains activities or activities from the Sumberlesung Village community related to the process of making beads, product exhibition activities, and so on. This website also integrates with e-commerce platform pages such as shopee, tokopedia, blibli, and so on. So that customers who are interested in the products offered on the website can directly buy them through the e-commerce they want.

On the website that the author has dedicated to external users, for example, the general public and their customers, they can access a digital dashboard containing a summary of transactions that have occurred in the beading business in Sumberlesung Village. With this digital dashboard, the public can find out which beaded products have the highest sales in a given month. In addition, it can also find out which products are of interest to customers, and find out which products generate the greatest income for craftsmen in Sumberlesung Village. The hope is that this digital dashboard feature can attract investors who want to invest their funds in community businesses in Sumberlesung Village.

Beaded enthusiasts in Sumberlesung Village are an international market, even most of their products are exported abroad such as to the Netherlands, France, America, and Thailand. However, it's a shame that only a few people know about beaded products from this village. Therefore, the author would like to introduce this product in general to the Indonesian people through the website that the author created and promote this local product so that it is more widely known by the international community. To attract consumers' interest, the authors provide several offers, including the provision of shopping vouchers, product discounts, and the provision of one item for free with the maximum terms of purchasing certain products. For the sake of the smooth distribution of products from producers to consumers, the author will cooperate with several local and international shipping companies. Shipping companies are companies that provide services in the collection, management, warehousing, and delivery of goods from producers to consumers.

The third step is to help the craftsmen in the financial aspect. Accounting management training to produce good and correct financial reports is a form of empowerment for craftsmen because so far they think that making financial reports is a difficult thing which is due to limited knowledge of accounting books, the complexity of the accounting process, and the assumption that financial statements are not important. Supported by an ERP software system, it will make it easier for craftsmen to make financial reports and analyze the level of sales and profits received. In addition, looking at the background, it is explained that the raw materials used are imported products. The craftsmen have difficulty in importing,

especially in terms of costs which are quite expensive. Therefore, the author invites the craftsmen who will later join one community to cooperate with the Jember Customs and Excise in terms of imports aimed at exporting. It is explained that in the KITE facility issued by the Directorate General of Customs and Excise there is an exemption from import duty and import VAT is not collected on the import of raw materials to be processed, assembled, installed, and the products are exported.

The design of an Enterprise Resource Planning (ERP) software system that can assist technology-based management information system activities for craftsmen in export and import activities has many reasons and foundations that make the author interested in offering this ERP system. ERP systems function to simplify various operational activities that take up a lot of time and effort. Complex tasks such as checking inventory, assigning tasks to employees, monitoring working hours, payroll, and generating financial reports, can all be done automatically. With less manual work, teams can focus more on their work without disturbing the rest of the team. For example, the marketing team can monitor daily web traffic reports without having to request them from the IT team, or the accounting team can generate reports related to sales without having to rely on the sales manager. ERP in this case can be said as a provider of fast data access for managers and stakeholders in the company. Decision-makers can monitor key performance indicators across the company only through digital dashboards. All the data needed in this case can be generated in real-time.

Then moving on to creating a marketing website, the main goal of the author is none other than to introduce and present the profile of this business to the general public, both local and international, so that they can know the uniqueness and attractiveness of this business. The website that will be designed by the author will be created by giving users the choice to access using Indonesian or English. The content that the author will present on the website includes profile content and an overview of this business, a digital dashboard that can provide an overview as well as recommendations to accesses related to the best-selling products in each certain period, as well as being able to integrate access with marketplace pages. famous in Indonesia. The author's goal to integrate this marketing website with the marketplace page is to make it easier for those who want to shop or make purchases on the beaded products that are sold.



Figure 2. ERP system for UMKM

The ERP cycle in Figure 1 shows that the ERP system makes it easy for business actors to create and control sales and inventory reports in real-time. With this inventory feature, incoming and outgoing goods can be more closely monitored and managed. With this system, in addition to helping MSME centers in terms of product management information systems, sales, and finance, it also helps with product promotion on a national and international scale. Able to monitor product distribution in a real-time and more transparent recording. This is also very helpful for the UMKM center of beads to become a centralized creative industry center that is known to the public and has good and accountable management by presenting financial reports that are by applicable standards. It is hoped that the development of this system will also be able to help MSME centers get easy facilities for export and import of raw materials with incentives given easily.

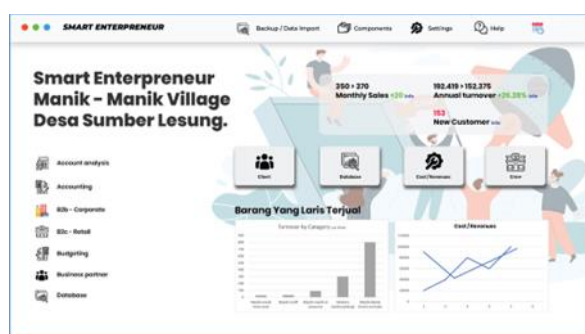


Figure 3. ERP System Prototype

This software comes with several features that have different functions, for example, the accounting feature is used to compile financial reports and compile production costs. The accounting analysis feature serves to analyze the level of income and profits received as well as monitor and compare the profits received every month. In addition, this feature is also used to see which craftsmen have the highest and lowest incomes and then evaluate which products are not sold. The business-to-business feature functions to market products to retailers or sell to other stores that are business partners. The database feature has 2 parts, namely the sales database which functions to record sales transactions every month and record consumer data from anywhere. The purchasing database has the function to record purchases of raw materials and their suppliers. Website marketing feature, this feature presents business and craftsman profiles. This feature serves to promote products to gain the advantage of a wider network, unlimited time and space with very clear delivery of information so that the products sold can be processed very easily. The payment process can be done online which on the author's website will be integrated with existing marketplaces such as Shopee, Tokopedia, Lazada, Blibli, and Bukalapak. In addition, this feature is useful for accelerating product introduction, especially since the consumer market for beads is mostly overseas, making it easier for craftsmen to collaborate with consumers because it is equipped with email, telephone, and other social media contacts.

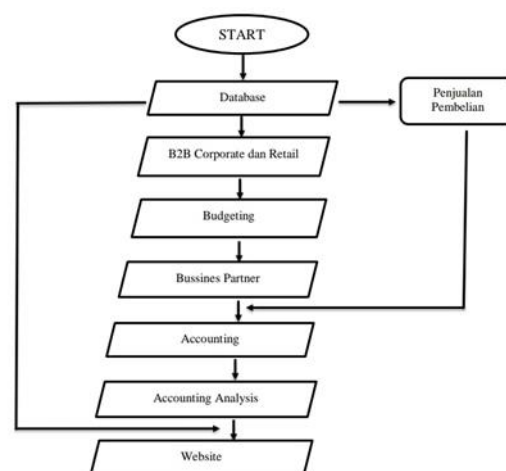


Figure 4. Flowchart ERP System

5. CONCLUSION

The design of the si lesung program based on erp software in this case can be a creative and innovative solution to improve the business development of the creative industry in the beads center of sumber lesung village. The existence of this software not only functions as a supporting medium that accommodates marketing and sales activities for beaded products to foreign markets but can also be used as a system capable of digitizing other operational management activities, such as database management and digital supply chain management. It is hoped that with the development of this program design, sumberlesung village can expand the global market for selling these beaded products so that it can increase its contribution to the country's foreign exchange and contribute more income to the Indonesian economy.

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