

Chapter 31

E-BUMDes: Innovation Holding BUMDes and Marketplace of Local Products and Village Tourism Services for Sustainable Poverty Alleviation efforts in Indonesia

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Abstract

Poverty alleviation is a government program that has been running since the 'New Order' in Indonesia. This program is considered to be a relative success because it can reduce the percentage of poverty rate in Indonesia from the average of villages and cities by 60% in 1970 to 10.12% in September 2017. But unfortunately the number of poor people in Indonesia is still high compared to neighboring ASEAN. According to Asean China the UNDP Report on Financing the Sustainable Development Goals (SDGs) in ASEAN reported that throughout Southeast Asia, 36 million people live in poverty and 90% live in Indonesia and the Philippines (National Geography). In order to continue the ideals of poverty alleviation, the government continues to develop programs that one of them through the policy of BUMDes (Village-Owned Enterprise) but currently BUMDes is still not maximized in terms of Integrated with Stakeholder and online business marketing that we know is increasingly popular-especially in Indonesian society as the increase of internet users. Therefore, this research is conducted by using direct interview method with BUMDes, government and business, as well as those responsible in BUMDes and Unit under it by using Empathy Map method which is realized electronically through E-BUMDes that produces marketplace platform in sale of local products and village tourism services, facilitate product design training and consultation to determine BUMDes business by expert teams as well as potential village promotion tools. In addition, E-BUMDes can create Holding BUMDes to integrate data to the Ministry of Village.

Keyword: *Sustainable poverty alleviation model, Economic Growth, Information Management System*

Introduction

The Indonesian economy is organized based on the principles of togetherness, fair efficiency, sustainability, environmental insight, independence and maintaining a balance of progress and national economic unity. So that in poverty eradication in Indonesia embodied in three program strategy that is: BUMN / D, Cooperative and Private. The reality of Law No. 6 of 2014 states that village development aims to improve the quality of human life and poverty alleviation through the provision of basic needs, the development of facilities and infrastructure, the development of local economic potential, and sustainable use of natural resources and environment, , kinship and mutual cooperation to achieve social justice.

The poverty alleviation program is a program that has been running since the Indonesian New Order Government (1970s), until now has been relatively successful in reducing the number and percentage of poor people in Indonesia. The decline in poverty is not in line with the size of the allocation of funds, leaving Indonesia far behind compared to other ASEAN neighbors. However, development programs such as in the village still have not had much impact.

Based on the reality, one of the opportunities in tackling the rural poor is through Village-owned enterprises (BUMDes) based on Permendes no 4 of 2015 on BUMDes and Law No. 6 of 2014 on villages. BUMDes outlines products of tourism goods and services. In addition, the Village Owned Enterprise (BUM Desa / BUMDes) becomes one of the priority programs of the Ministry of Village, Disadvantaged Area Development and Transmigration (Kemendes) Year 2017. Through BUMDes, villagers are encouraged to manage the economy autonomously.

In 2014 there are 1,022 units of BUMDes. This number increased to reach 18,446 units in 2015 spread across several regions in Indonesia. But the increase in the number of BUMDes is not accompanied by good management and monitoring by the government that impact on the price of products or services from BUMDes tend to be less consistent in quality and quantity so that products or services less desirable in the market. In addition there are still many villages that do not have the qualified human resources in the planning, management and marketing of products in managing BUMDes. Of the number of BUMDes, there are some areas that have not been productive for example BUMDes in Kota Batu. According to Subhan as head of BUMDes Pesanggrahan village stated that "In Batu City, from 19 villages with BUMDes, only a few villages are currently seen as productive as BUMDes Desa Sidomulyo, Bumiaji, and Pesanggrahan due to the many factors that make constraints during the management process of the BUMDes "(Kompas, 2017).

Be aware of the problem, the solution expected by the author by creating E-BUMDes which is a marketplace platform in selling BUMDes products and services business is also to facilitate product design and consultation training to determine BUMDes business by expert team as well as potential village promotion facilities. In addition, E-BUMDes can create Holding BUMDes to integrate data to the Ministry of Village so that the government can control the development of BUMDes.

Experimental Methods

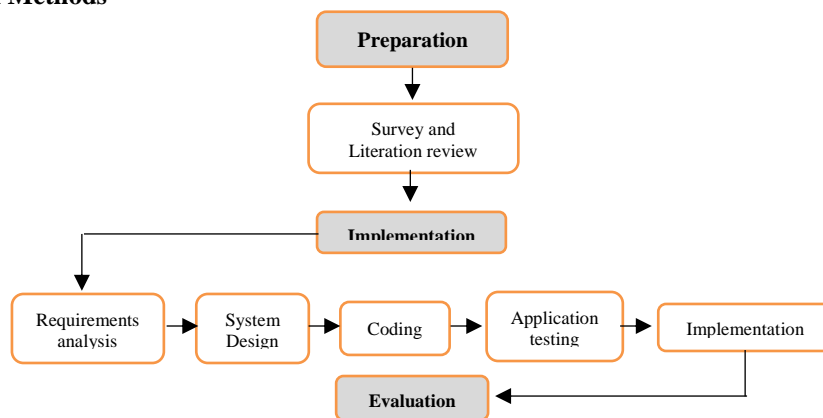


Fig 1. Flow diagram of experimental method

1. Preparation

This stage is the first step to make the survey possible. The location of the survey itself is located in the BUMDes of Small and Medium Micro Units (UMKM) Pesanggrahan, Batu City Government. Types of data used are primary data (interview) and secondary data (citation). Interviews were done by adjusting the research focal using Empathy Map Theory.

2. Implementation

Problem analysis using Empathy Map Theory and also costuming requirement of BUMDes and UMKM is a first step in this stage. The requirements are divided into two parts; functional requirement and non-functional requirement. Functional requirements contain processes that can be operated by the system and non functional requirements describe supporting features and tools that will be used for building and developing the system such as XAMPP, Notepad++, codeIgniter platform, bootstrap, and also detail of testing device. Then, the system design will be build using incremental model process. The advantages of incremental process are making development process fastly, easier to know if has an addition user's requirement, and having minimum resource to make changes in software (Sommerville, 2011). The implementation of the system is coding in the form of programe codes, according from system design. If it was implemented, there will be the websites and also need application tested to know bugs and error in the system and to check all requirements are implemented. Then, the system can be accessed by all BUMDes, UMKM, also the society in Indonesia.

3. Evaluation

Evaluation is conducted to determine the effectiveness of E-BUMDes application and to ensure that the application is running according to previous planning.

Result and Discussion

BUMDes (Village-Owned Enterprise)

BUMDes or Village-owned enterprises based on Permendes no 4 of 2015 on BUMDes and Law No. 6 of 2014 on villages. in Article 87 stating that BUMDes is formed on the basis of the spirit of kinship and mutual assistance to utilize all economic potential, economic institutions, and the potential of natural resources and human resources in order to improve the welfare of rural communities. BUMDes outlines products of tourism goods and services. In addition, BUMDes collects several types of MSMEs below such as Social Business, renting, brokering, trading, financial business, and holding (Aware group of tourism). Management of BUMDes adapted to local potential, for example On BUMDes in Pasenggrahan Village. Products produced in the form of milk and Hydroponic Farms, Financial Business in the form of savings and loans for the community, and Aware Group on the management of dairy tourism, Coban (Waterfall), and Climb at Panderman Mountain.

Empathy Map

Anyone who studies the business model should be able to parse the profile of the intended customer segment. A good way to start is to use the empathy map, a thought tool that helps us walk beyond customer demographic characteristics and develop a better understanding of the environment, behaviors, concerns and aspirations. With this tool we can find a stronger business model because customer profiles guide the design of better value propositions, a more convenient way to reach customers, and better customer relationships. Map empathy is a visual aid developed by visual thinking company called XPLANE. This one-page visual tool consists of six boxes of questions that enable the company to better understand what customers really want. (Alexander Osterwalder and Yves Pigneur, 2012: 131).

Table 1.
Empathy map

<p>What did he see? See Describe what customers see in the environment.</p> <ul style="list-style-type: none"> - What does it look like? - Who surrounds it? - Who are his friends? - What's the problem? 	<ol style="list-style-type: none"> 1. Competition of products from domestic and abroad in large scale. 2. Products from small and medium micro units of BUMDes are still constrained on the consistency of quality and quantity. 3. The community is less actively participating 4. The problems faced by BUMDes are generally the same in the management of human resources and marketing and the lack of government and media participation.
<p>What did he hear? Hear Describe how the environment affects customers</p> <ul style="list-style-type: none"> - What did his friends say? The couple? - Which media channels have an effect? - Who influenced him and how? 	<ol style="list-style-type: none"> 1. Products produced less able to compete with medium and large industrial products. 2. Lack of local and national media participation in "Branding" products produced by BUMDes units. 3. Platforms such as Tokobagus.com, OLX.com, etc. as a product marketplace cannot be entered by the micro small unit product of BUMDes 4. Influential media in Indonesia is a medium that is managed privately and is currently being intensively-incessant marketing through social media such as Instagram, Line, Youtube etc. 5. Generations X and Y already use smartphones and supported internet channels to the village by the government. 6. Today's society has many who use the Marketplace in buying and selling transactions.
<p>What does it say and do? Say and Do</p> <ul style="list-style-type: none"> - What's his biggest frustration? - What are the risks he fears? 	<ol style="list-style-type: none"> 1. Reporting the results of BUMDes to the village authorities completed reporting on accountability for a month. 2. Central Government (Ministry of Village) get data BUMDes results for a year due to the length of process of bottom-up procedural. 3. Limited human resources professionals in managing units under BUMDes 4. Inadequate planning in taking into account organizational strategy. 5. Productivity every year is reduced. 6. People are less interested in Tourism Services provided.
<p>What kind of hurt does the customer feel? Pain</p> <ul style="list-style-type: none"> - What does he really want to achieve? - How does he measure success? 	<ol style="list-style-type: none"> 1. Lack of government expenses because the government does not have media / facilities to accommodate or collect BUMDes so that the Government does not have data related to the development of BUMDes. 2. Potential Villages like in Pesngrahan ie milk today has been taken over by large companies that result in the inclusion of a few breeders. This potential will be taken over and managed by BUMDes to increase revenue 3. Products and services can be recognized locally or nationally.
<p>What are customer acquisitions? Gain</p>	<ol style="list-style-type: none"> 1. Percentage of increased activities such as milk management activities 2. External investors who want to invest in micro small unit from BUMDes 3. The large number of communities involved in the development and management of small micro units in BUMDes. 4. Increased productivity in the management and marketing of Products and services produced by Units of BUMDes.

Source: Processed by Authors, 2018

From the results of field study using Empathy Map in table 1, it can be concluded that some of the needs of BUMDes Management, such as:

1. Needed innovation related to “Holding BUMDes” development in the form of facilities connecting Government with BUMDes every village in Indonesia, so that government can monitor productivity from every BUMDes in Indonesia.
2. Currently, Generations X and Y have access to buying and selling through the marketplace on smartphones because it is more reliable, effective and efficient in the use of time, effort, and price.
3. The need for business consulting facilities by experts on product training such as Packaging of product, business finance, strategic market and etc. This facility is indispensable for units under BUMDes such as Micro-Small and Medium Units.

Operation of E-BUMDes

BUMDes located in every sub-region or village in Indonesia. The purpose of BUMDes are to facilitate the society to improve or build a business through BUMDes unit, supervise performance of BUMDes units, and provide a consultation center and training about BUMDes. The community must register to BUMDes in order to join BUMDes unit, then BUMDes will verificate of its eligibility. If it is accepted then BUMDes unit can be operated. BUMDes can monitor BUMDes units progress through result of transaction history in every single BUMDes units.

Requirements Analysis and System Design from BUMDes operational data can be arranged functional system requirement as follow:

1. The system provides view function of BUMDes units infomation for visitor
2. The system provides educative BUMDes videos function for visitor
3. The system provides register costumer account function for visitor
4. The system provides register BUMDes unit account function for visitor
5. The system provides view function of transaction status for costumer and BUMDes unit
6. The system provides update function of transaction status for costumer and BUMDes unit
7. The system provides update function of service or product information for BUMDes unit
8. The system provides update function to confirm registered visitor for BUMDes
9. The system provides buy function of product or service in BUMDes unit for costumer
10. The system provides update information function of BUMDes unit for BUMDes
11. The system provides delete function of BUMDes unit for BUMDes
12. The system provides add function of BUMDes unit for BUMDes
13. The system provides add function of educative BUMDes video collection for BUMDes
14. The system provides delete function of educative BUMDes video collection for BUMDes
15. The system provides detail profit result function of BUMDes unit for BUMDes
16. The system provides update function of profile for costumer
17. The system provides list of view BUMDes unit BUMDes based on categories (product or service, city, sub-region or village)
18. The system provides detail order function for costumer
19. The system provides view function of transaction history for BUMDes, BUMDes unit and costumer
20. The system provides login function for visitor
21. The system provides logout function for costumer, BUMDes, dan BUMDes unit



Fig2. Use casediagram of E-BUMDes

System workflow

Here is the steps of management information system on E-BUMDes in general.

Requirements:

1. Customer, BUMDes Unit Administrator, BUMDes Administrator and visitor must have a mobile device or computer and have good internet connection
2. Customer, BUMDes Unit Administrator, BUMDes Administrator and visitor must have a good internet connection

Case 1:

1. Visitor chooses a city and/or sub-region of BUMDes Unit place
2. Visitor picks up a product or service

3. Visitor becomes a customer by register as customer and login to system
4. Customer fills details of order and payment option and click submit
5. BUMDes Unit gets notification about new order from customer
6. BUMDes Unit confirm an acceptance of customer order
7. Customer gets notification and pay of billing order and update payment status in system
8. BUMDes Unit gets notification and check the customer payment, if it has paid then BUMDes Unit update status of order as in progress
9. BUMDes Unit sends customer order (in case it is product) or give an invoice (in case it is service)
10. Customer gets a product or an invoice
11. BUMDes Unit changes order status as complete and it becomes a transaction history

Case 2:

1. Customer come directly to BUMDes Unit
2. BUMDes Unit inputs customer information and order data into database on the computer

Advantages and Long term benefits

Table 2.
Advantages and long term benefits of E-BUMDes

Objects	Advantages of E-BUMDes	Long Term Benefits
BUMDes	Can review progress of each BUMDes unit based on transaction history through application of management system	Each BUMDes unit can be controlled, so it can continue to evaluate
	Can provide information related to product and service update	Time efficiency related to information delivery and administration
BUMDes Units	Can register with paperless document process	Time efficiency related to information delivery and administration
	Can receive a customer order information fastly and provide customer order information progress directly through system	Time efficiency related to information delivery and flexibility over time
Customer	Choose a product or service and can order directly through system	Save cost, time and effort in ordering product or service
	Can receive reporting information of order through website system	Time efficiency related to information delivery and flexibility over time
Visitor	Can know any information accessed through the website system	Time efficiency related to information delivery

Impact of Innovation Development

Long-term impact of application of management information system and e-business through E-BUMDes application will certainly be related to the business and society-development sector that is increasing productivity of BUMDes. In addition, the implementation of this information system indirectly provides the impact of science and technology learning for the community. Utilization in the form of application is also at the same time preparing technological sophistication in the future for future generations

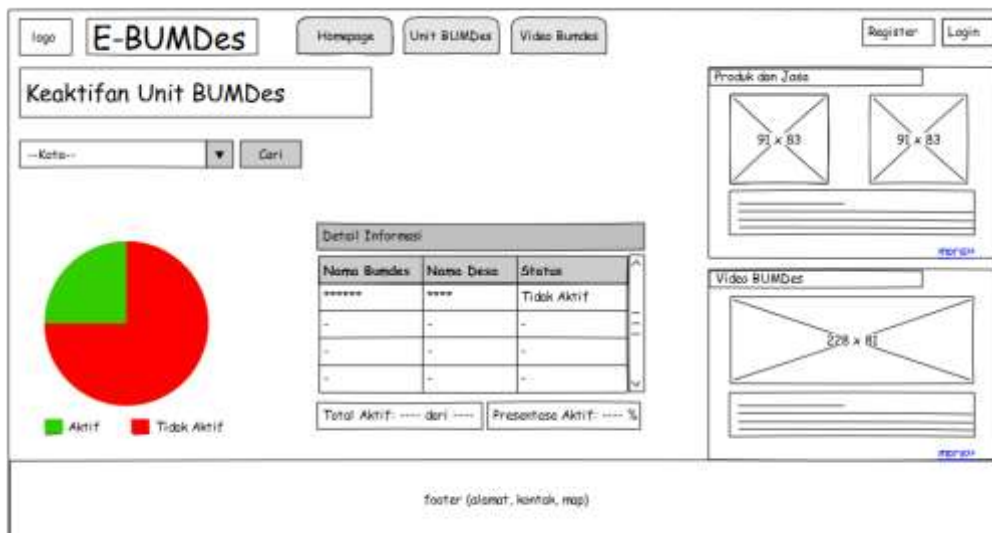


Fig3. Basic View of E-BUMDes Homepage

Conclusion

Village-owned enterprises (BUMDes) is one of the opportunities to tackle the rural poor based on Permendes no 4 of 2015 on BUMDes and Law No. 6 of 2014 on villages. Broadly speaking, BUMDes produces tourism goods and services. Village Owned Enterprises (BUM Desa / BUMDes) become one of the priority programs of the Ministry of Village, Disadvantaged Area Development and Transmigration (Kemendes) Year 2017. Through BUMDes, villagers are encouraged to manage the economy autonomously. However, BUMDes products tend to lack the consistency of quality and quantity so that the products or services are less desirable in the market than there are still many villages that do not have the qualified human resources in planning, managing and marketing the products in managing BUMDes. E-BUMDes which is a marketplace platform in BUMDes products and services sales is also aimed at facilitating product design and consultation training to determine BUMDes business by expert team and other potential village promotion means besides, E-BUMDes can create BUMDes Holding to integrate data to the Ministry of Village so that the government can control the development of BUMDes.

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