

SME DEVELOPMENT BASED ON INFORMATION AND COMMUNICATION TECHNOLOGY TO GLOBAL MARKET IN DISTRICT KENDAL

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ABSTRACT

Today, free trade could no longer be contained so that foreign products in circulation and into the local market in the region of the country. This condition has an impact on the products of local entrepreneurs, especially SMEs have to compete with foreign products. Circulation of foreign products or import very quickly, because it is generally supported by information and communication technology in the form of marketing online and are global market, while the marketing of local products mostly still use the physical market is regional. KKN-PPM program Faculty of Information Technology Satya Wacana Christian University implemented to community groups that is incorporated within the SME community Kendal district, Central Java province, carried out by the method of mentoring and development of market applications online. KKN-PPM goal is to provide empowerment in the field of information and communication technology (ICT) for SMEs. Targets and achievements of KKN-PPM program is MSME entrepreneurs are able to use ICT in particular creative multimedia basis for the design of product packaging labels, design market content online, and can make brand business, and able to manage the site online market independently. So that SMEs are able to the global market, to raise the potential of the area and improve the welfare of the community.

Keywords: *Information Technology, Online Market, KKN-PPM, SME.*

1. INTRODUCTION

Kendal is one of the district in Central Java. Boundary region administratively Kendal can be described as follows: North: Java Sea; East: Semarang; South: Semarang District and Waterford; West: Batang district. Kendal is located in the geographical position of 109 ° 40' - 110 ° 18' east longitude and 6 ° 32' - 7 ° 24' South Latitude. Topography Kendal divided into three types: a mountainous area located in the southern most part with a height between 0 and 2579 m asl. The temperature is around 25 C. Then the hilly area next to the center and the lowlands along the coast to the north with a height between 0 s / d 10 m above sea level and temperatures ranging from 27 C [1].

Based on the geographical conditions, the main potential Kendal are commodities and marine

aquaculture, which is particularly fish milkfish. Farmed fish milkfish reached 4,000 tons per year and can be expanded up to 10,000 tons per year because the location where the cultivation spread over seven (7) districts in the Kendal area covering 3,400 hectares. But the cultivation of only about 10% are used by fish processing industry milkfish business community in the area of Kendal.

Business conditions other community Kendal district is in the field of trade. The number of business units trade in Kendal in 2008 - 2010 shows an increase of 1,148 units in 2008 to 1,202 units in 2010. However, in 2011 the number of business units trade in Kendal decreased to 734 units. This can be seen in Table 1.

Table 1. Number Of Trading Business Unit And Total Employment In Trade Business In Kendal Year 2008 -2011 [1]

No.	Uraian	2008	2009	2010	2011	Growth (%)
1.	Total trading business units (units)	1.148	1.167	1.202	734	-11,43
2.	The number of workers (people)	2.248	2.286	2.354	2.734	6,94

These conditions concern the local government, therefore, various attempts have been made by the government and the business community groups. Some things such efforts among other evidence first, alignments Regent Kendal to SMEs embodied in the "Golden Pin" by the Governor of Central Java. Regent Kendal was awarded a gold pin, because it has many achievements and alignments in the field of cooperatives and SMEs [2]. Second, Regent Kendal Earn a Certificate of Appreciation from the CTF [3]. Pioneer Industrialization milkfish, conducted by Kopmir-Karsa (People's Cooperative Work Together Industrial Society) since 2005. This event is the optimization of the raw material that is qualified milkfish fish, optimization in the field of processing and marketing. The target of this activity is to get a superior product that is competitive and value-added, such as milkfish Stretcher (without spines) which has been producing about 300 kg per day. Besides Kopmir-Karsa, another business group partners milkfish king, queen milkfish, milkfish Mas and Rojal milkfish also been doing business milkfish fish processing industry and the average produce per day reaches 100-200 kg. Third, the establishment of the Society of SMEs Kendal Permai. The Society, founded in 2011, the Governor of Central Java Circular Letter No. 518/17567/2011 September 21, 2011 on the Development of Shopping Centres Souvenirs and Foods in the city district of Central Java. New Permai Kendal Market on the second floor are located in Jalan Sukarno Hatta Kendal has a major role in promoting SMEs because through this means superior product can be marketed and exhibited.

Based on this, it is to strengthen the brotherhood and increase community solidarity Kendal incorporated within business groups, especially SMEs as much as 62 units or groups of enterprises, jointly incorporated in the Society of SMEs Kendal Permai container, which is located in New Permai Kendal Market 2nd floor started dated May 6, 2012 in the Meeting Room of Industry and Commerce Kendal. SME Society of Kendal Permai is a partner in the activities of KKN PPM Higher Education in 2013, funded in 2014, has a vision of promoting SMEs Kendal, and the mission of the association is to make SMEs ie Kendal more resilient,

independent, innovative, competitive and have a good mental attitude with full sincerity.

To carry out the activity of trading and sales of production members, the Society of SMEs Kendal Permai also has a Cooperative Production Tips Independent Business (SME) which was established in 2013. The business line KP SMEs, namely Product Marketing Partnership; Partnership Provision of Packaging Products; Mentoring and Business Consulting. While KP SME products, among others, (1) Services marketing and distribution of a variety of beverage products, various processed fish milkfish, snacks, souvenirs and handicrafts, art (painting, calligraphy, paying), convection. (2) Packaging Services, among other miscellaneous packaging of processed fish milkfish (Dus and Plastics), packaging various foods, especially snacks, bottled refreshments.

Based on observations and data presented, it can be identified any problems or need for the solution of the Society of SMEs, particularly in the context of doing business marketing products. In general, members of the association or SMEs have limitations in the mastery of information technology. While the demands on the use and mastery of information technology is already being felt increasingly urgent given the level of competition in the local market, regional or global, where every business has begun is required to present information quickly and accurately to customers. Thus, the public is also required to be able to promptly respond rapidly to requests and demands of its customers. Based on the data, KP SMEs often have estimation error between the ability of the supply of goods with a high level of market demand. This condition requires a comprehensive solution by utilizing information technology.

Another problem is the weakness in the system of bookkeeping / recording the results of product and demand for SME associations or cooperatives KP has not utilize optimally the application of information technology. In addition to this, the products of SMEs in the community of about 70% is still not listed on offices or agencies, for example Certification Halal and Healthy, especially for food and beverage products [4].

Related issues in the field of basic multimedia ie SME members Kendal Permai can not print

packaging products in relatively small quantities, because the printing services company that always gives prints a minimum order requirement is too high, so the operating costs of packaging products become more expensive SME members. To be able to respond that it is necessary to support the training and strengthening of human resources for the community as well as the cooperative to be able to operate the application of Information and Communication Technology as well as mastery of the Internet. Media training for human resource needs of SMEs members of the association to be able to answer the challenges of competition in the global market, while the need for assistance is expected to provide a solution for the development and strengthening of business management of SMEs and Cooperatives Association KP SMEs. The need training on appropriate technology in the field of multimedia in order to afford in the development of digitization of data, product packaging design, and information and communication technologies are needed, to be able to display superior products SMEs are unique and have high selling power.

The challenge for SMEs today is the presence of the ASEAN Economic Community by 2015. ASEAN Economic Community to apply the provisions of the free flow of goods in ASEAN countries are embodied in the ASEAN market integration. Thus, Indonesia, especially the SMEs need to increase their competitiveness in several ways, namely expanding the marketing network, improve the mastery of information technology and communications including marketing campaigns and lobbying [5]. Based on this, the necessary assistance in terms of the empowerment of information technology, especially the utilization BLOG containing business profile, product catalog and stretching SME, to improve the promotion and marketing of products. In addition to this, also the utilization of e-commerce or online market for means of online transactions in order to provide efficient services for SME customers. This is done in order to encourage businesses, especially SMEs to set migration tradition of marketing and commercial transactions, from traditional market into Digital Market. Thus, the Digital Market for SMEs, are expected to provide high operating efficiency, so as to increase competitiveness in the global market.

Targets and outcomes as the product of KKN PPM program for members of the Society of Kendal SMEs are as follows:

1. Assistance and Multimedia training for members of the Society of SMEs Kendal Permai.

Target:

- Participants 30 special SME Association members
- Digital Documentation: Products per SME
- Label and packaging design for each product MSMEs

2. Assistance and Internet training.

Target:

- Have e-mail (e-mail)
- Have the address of data communication via the internet channel.
- Has social media, as a means of social skills and the promotion of the product.

- Have a BLOG that serves as a presenter of business information, including business profiles, social media address information and product catalog.

3. Assistance and management training for the managers of the Web Online Market Online Market SMEs Kendal.

Target:

- Online Market Management SMEs Kendal.
- SOP (Standard Operating Procedure) and Application Online Market SMEs

4. Patents Domain Web Online Market SMEs Kendal. Society has a domain, web servers and application of e-commerce Online Market SMEs Kendal.

Target Program KKN-PPM results are achieved by the students of KKN PPM numbered 2 will accompany at least 1 (one) SMEs and living together (Live In) with the SME for ± 2 months. This program activity also had an impact on the surrounding community formed entrepreneurial SMEs, as well as provide opportunities for students and SMEs to become business partners.

Category of e-commerce applications are built as Online Market SMEs Kendal is a business-to-consumer (B2C). Business-to-consumer e-commerce is a category that has a retail transaction (retail) with individual buyers. This business model is often referred to as e-tailing [6].

Online market SMEs Kendal is equipped with a service notification (notification) transaction information that happens to actors systems using e-mail facilities.

2. METHODOLOGY

The method of implementation of program activities KKN PPM-based SME Empowerment Information and Communication Technology Kendal Towards Global Market poured into several stages as shown in Figure 1 and Figure 2.



Figure 1. Methods of Implementation of KKN PPM Program Step 1

Figure 1 is as follows:

Step 1 is the preparation and debriefing Students KKN-PPM. This stage is the preparation activities KKN PPM program that includes:

1. Socialization Program KKN-PPM to partner

This activity in an effort to provide insight into the mechanisms related to the implementation of the program, namely the rules and regulations, targets and achievements of the program, and the readiness of the student residence in partner or target group.

2. Exposure to students participating in KKN-PPM among others

- The mechanism of implementation of the program, namely the order, form filling reports, implementation schedule, and target / performance program.

- Conditions and partner issues, which provides insight and preliminary data about the problems and needs of the solution to the target group of the program, namely SMEs Kendal Permai community members.

3. Training for Students, among others

- Multimedia Association, which is training to be able to operate the application design (adobe photoshop) to design labels and packaging products SMEs.

- Basic Accounting, namely the use of training aids, application / software to manufacture ledger, balance sheet and cash flow as a financial accounting basis for SMEs.

- Mentoring FGD (Focus Group Discussion), ie training for students to be able to lead the discussion in an effort to accomplish the solution in a meeting forum with SMEs, which can be used as a means of empowerment of the target group.

Step 1 generates Outcomes I, among others:

- 1) Partner and students understand the mechanisms of implementation of the program
- 2) Mapping mentoring students in the group of partners
- 3) Students have basic competency program

The next step is Step 2 and Step 3 that can be seen in Figure 2.

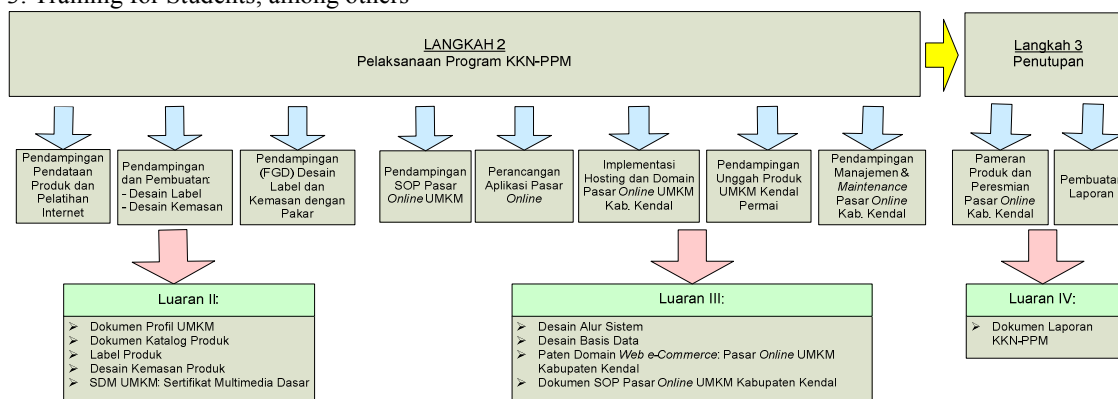


Figure 2. Method of Implementation Program KKN PPM Step 2

Figure 2 which is the stage of step 2 contains the implementation of the program includes several operational steps to achieve results KKN PPM program as follows:

1. Assistance Data Collection Products and Training Centre

At this stage, the partners must play an active role in providing information and data right KKN PPM students participating. Identification tools at this stage can be kuosioner and form-a form of data collection products.

2. Mentoring and Making Labels and Packaging Design.

Students perform basic multimedia empowerment for SMEs associated label and packaging design.

3. Assistance (FGD) Label and Packaging Design by Expert

Results of design and product packaging SMEs and students consulted with expert design experts at the given time proposer team, in order to get guidance and good design.

4. Assistance SOP (Standard Operating Procedure) Online Market SMEs

5. Designing Applications Online Market

6. Implementation Hosting and Domain Online Market SMEs Kab. Kendal

7. Assistance Upload MSME products Kendal Permai

8. Assistance Management & Maintenance Online Market District. Kendal

At this stage of the 4th until the 8th stage is a stage in an effort to provide empowerment in the online market that partners have an e-commerce applications with business processes in accordance with the agreement of the members of the association, as well as the online market is able to manage independently.

Step 3, the closing stage is implemented and the inauguration of the exhibition market products online Kendal district in an effort to introduce the

online market applications as potential MSME product information center and the central region of online commercial transactions, especially for the district of Kendal and in general for the region in Indonesia and even foreign state. This activity is also expected to produce a memorandum of understanding (MOU) between Kendal and District Christian University Satya discourse, especially in the development of Information and Communication Technology, as well as other science and technology development in order to follow-up activities KKN PPM program.

To be able to realize an e-commerce application that is used as an Online Market SMEs Kendal, then it must be the design process as a reference system of business processes that apply to e-commerce is built. There are 7 (seven) in the application design process Online Market SMEs Kendal, namely registrerasi buyer, upload products, manage product discounts, product ordering, confirmation of payment the buyer, manage payment confirmation, and confirmation of delivery.

Figure 3 is a process flow diagram registrerasi buyer. So, to be able to order products at Online Market SMEs Kendal, the buyer must be a member of that transaction history can be kept buyers on the application, so it can be used as material application development. Seen also in Figure 3 that the buyer must accept the terms of service Online Market SMEs Kendal to become a member, so as to keep the buyer's regulations and requirements to comply with the applicable business. This is done so that the manager of the Online Market SMEs Kendal may not have difficulty maintaining transaction data is garbage as a result of the transaction are not serious buyers.

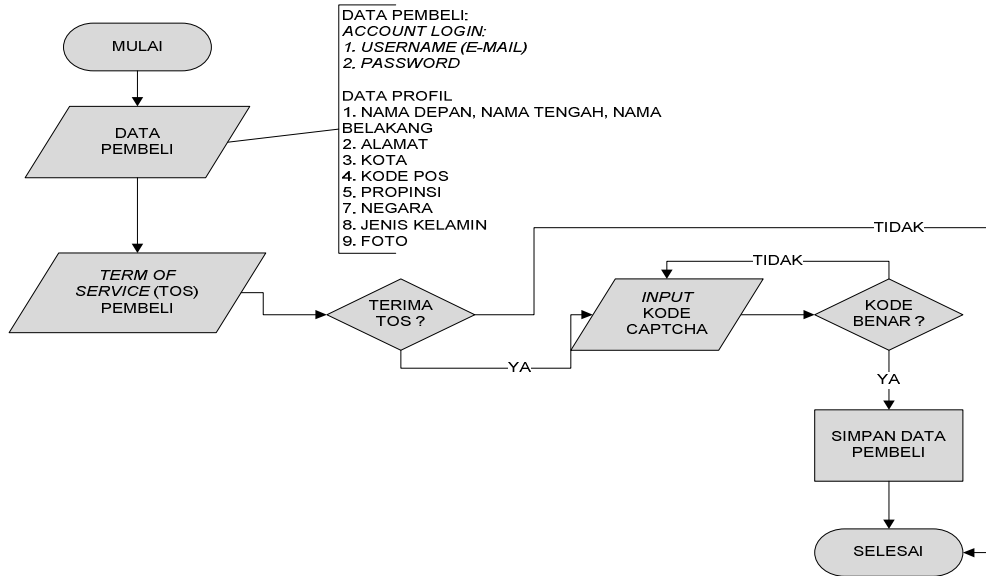


Figure 3. Flowchart Register Buyers

Some of the processes that exist in the Online Market SMEs Kendal in principle the same as that of the process of e-commerce category of business-to-consumer (b2c), among others, the process of ordering the product by the buyer members, and confirmation of payment. Differences which are unique to the Online Market SMEs Kendal with b2c e-commerce in general is the involvement of SMEs Association Kendal Permai in the process of e-commerce business, which especially in the process of uploading process management products and product discounts.

This community involvement should be applied in the process of e-commerce businesses, as e-commerce applications are owned SMEs Kendal as members of the association, which the community as local government representatives Kendal feel obliged to protect and responsible. Community involvement as an owner and responsible for the Online Market SMEs Kendal is also expected to have an impact on public confidence in the Online Market SMEs Kendal. To be more clear community involvement in the process of uploading the products can be seen in Figure 4.

Ruang Lingkup	Pihak yang terkait					Dokumen	Waktu
	Pemasok	Customer Service	Pengelola Konten	Paguyuban	Dokumen		
Pengisian Formulir Pendaftaran (Member) sebagai Pemilik / Pemasok Produk	Mulai Mengisi formulir pendaftaran sebagai pemilik/pemasok produk	Menerima formulir pendaftaran dari pemasok				1.1	
Pengisian Katalog Produk	Mengisi form katalog produk Mengumpulkan form katalog produk ke Customer Service	Menerima form katalog produk dari pemasok				2.1	
Pengisian Harga Dasar Produk, Pajak, Share Profit dan Harga Jual	Mengisi form pengisian harga jual produk Mengumpulkan form harga jual produk ke Customer Service	Menerima form harga jual produk dari pemasok				3.1	
Pembuatan Surat Pernyataan Kepemilikan Produk (Koramil, Kareskrim)	Mengisi form pengisian surat pernyataan kepemilikan produk Mengumpul form surat pernyataan kepemilikan produk ke Customer Service	Menerima form surat pernyataan kepemilikan produk dari pemasok				4.1	
Pengisian Katalog Harga Jual dan Share Profit (Koramil, Kareskrim)		Mengumpulkan formulir yang diisi oleh pemasok ke Pengelola Konten	Diperiksa Gagal	Lolos	Disahkan		1 hari
Pengisian Katalog dan Harga Jual ke dalam Aplikasi			Menerima pengesahan dokumen 1.1, 2.1, 3.1, 4.1 dari Paguyuban				1 hari
			Melakukan pengisian katalog dan harga jual produk ke dalam aplikasi				Selesai

Figure 4. Standard Operating Procedures and Upload Registrasi Services Products

Figure 4 is a standard operating procedure registrerasi service process flow and upload products into the Online Market SMEs Kendal. Seen in Figure 4 that the Society has a role as a determinant and guarantor of a proper or improper product can be sold in the Online Market SMEs, by working with content manager in checking the suitability of the product catalog. Society as the owner of Online Market SMEs Kendal also responsible regarding the business relationship with the owner of the product, namely SMEs member of the Society of SMEs Kendal Permai, so the business agreement between the Online Market SMEs with the product owner may be authorized by law.

The involvement of the Society of others in the Online Market SMEs Kendal is the process of governance discount conducted by customer service. Society as the owner of Online Market SMEs Kendal must know all the measures taken by the managers of SMEs that Market Online customer service, especially giving discounts to buyers members. In order to more clearly understand the process of governance discount, it can be seen in Figure 5. Referring to Figure 5, it can be ascertained in case of giving discounts to members buyer, then it is through the process of approval of the Society.

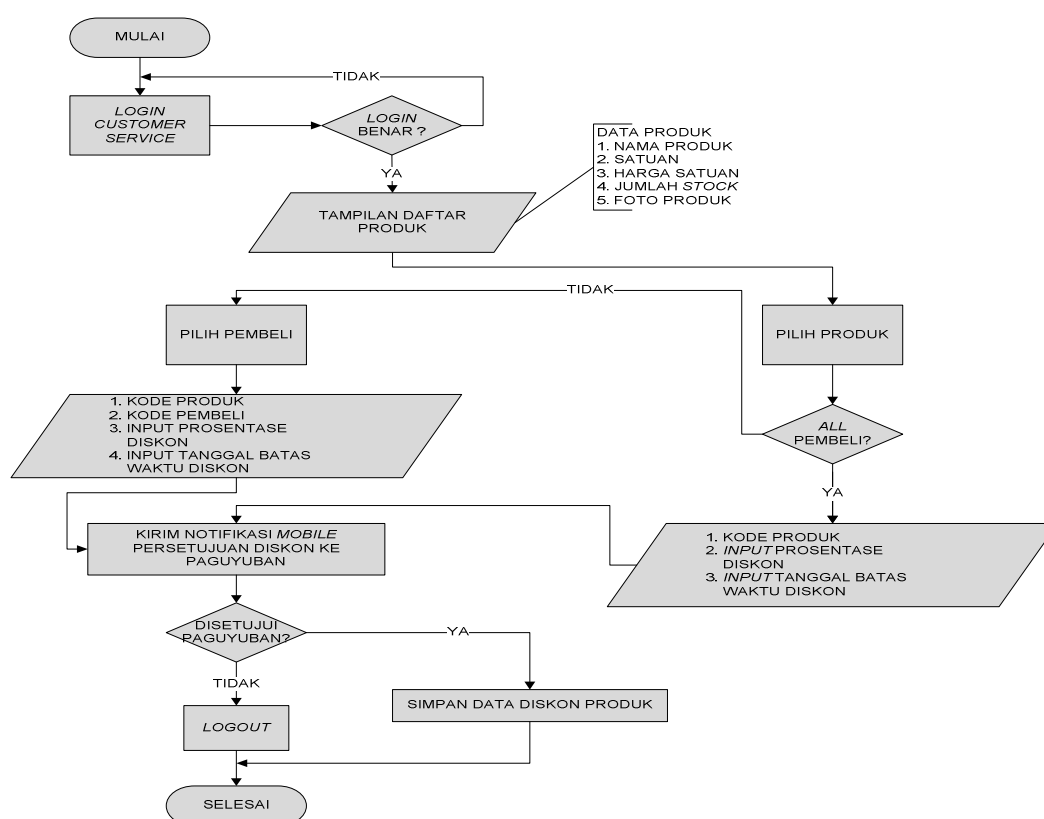


Figure 5. Flowchart Process Manage Discount Products

3. RESULTS

Facts found related to the management of information carried by the majority of SMEs as partners or target KKN PPM program in Kendal is the management information manually. The SMEs are already using information technology, but still in the stage of the use of information technology-based tools, such as personal computers, laptops, tablets, and even a smartphone. Some SMEs also own media information, namely BLOG, but the

content is owned not utilize the knowledge and competence of Information Technology, making it less attractive and memorable unreliable, due to lack of appropriate data and information, for example in presenting a business profile, product display and description of the product as a product catalog. The existence of this condition is obtained from the activities undertaken mentoring students participating KKN-PPM and when the Focus Group Discussion.

Therefore, it is the implementation of KKN PPM program produces a model of implementation of information technology-based community development, especially for SMEs. This model is made on the basis that some of the main things related to media and information technology

knowledge to be prepared, before the SMEs using an e-commerce applications, namely online market SMEs Kendal as a means of online marketing and sales in the global market. There are three (3) stages in the empowerment model, the first phase can be seen in Figure 6.

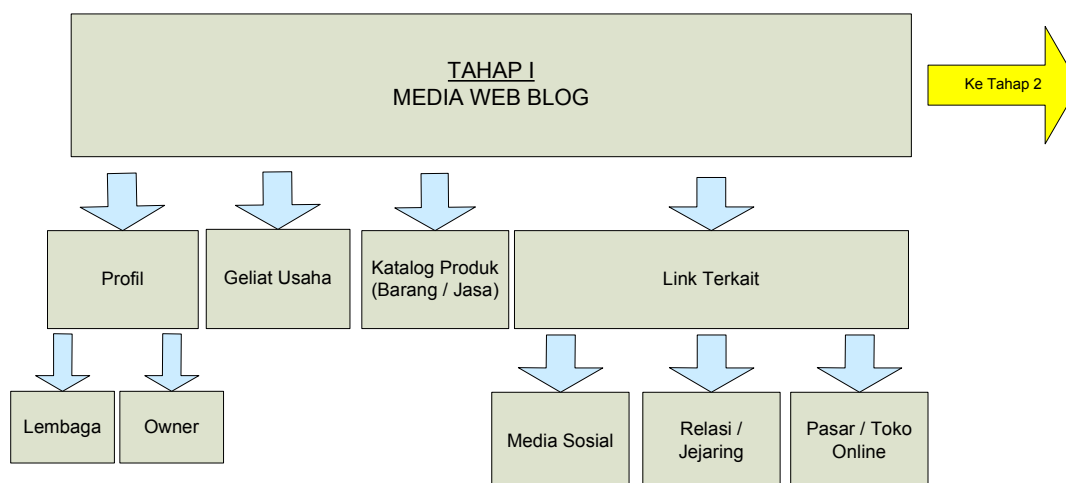


Figure 6. Model of Information Technology-Based Community Development Phase I

In figure 6 seen that stage I was assisting in the effort of making the information media, as a means of storage, arrangement and presentation of business information, namely using the Blog or Weblog. Blog is a collection of personal website that allows the creators to show different types of content on the web with ease, such as paper, a collection of Internet links, documents (files in Word, PDF, etc.), image or multimedia [7]. Thus, the author is able to update his information continuously, and may provide links to other websites which are considered important and interesting, and can facilitate the comments, both from the owner of the blog and other people. Through this blog, the SMEs are empowered to manage their business information easily and cheaply.

Based on some of the results of the FGD deal is constructed Blog contains content such as information on business profile, stretching business,

product catalogs, and related links. In related links contain or networking relationship with the Society, local government agencies as a business coach and protector, or with those who can give the public confidence in SMEs. To be able to deliver content more attractive product catalog, SMEs also empowered on application design in order to make it attractive product display, label and packaging design that is representative, even brand business.

Phase II is the stage of promoting SME business through social media. SMEs are also empowered to be able to use the results of the Information Technology in the form of social media such as facebook and twitter, as media promotion and marketing. This is the focus of this KKN PPM so that the SMEs can provide product information and a complete and clear effort to friends through the social media links to its blog. Phase II can be seen in Figure 7.

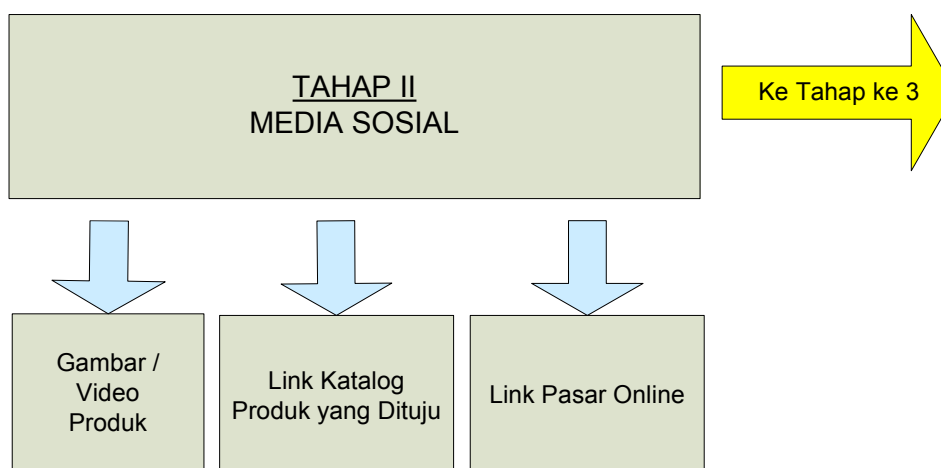


Figure 7. Model of Information Technology-Based Community Development Phase II

Figure 7. Model-Based Community Development Stage Information Technology IIPada Figure 7 shows that the in marketing the product, SMEs are empowered to be able to share information in the form of photos or video products business in social media, always connected to its

blog, as well as a store or online market facilities or means of online sales transactions.

The last stage is the third stage is the stage of the use of the online market that can be seen in Figure 8.

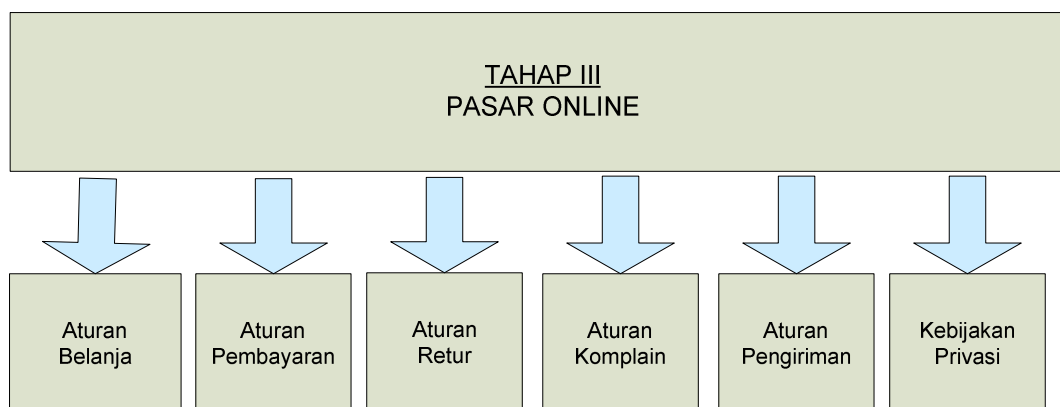


Figure 8. Model-Based Community Development Information Technology Phase III

In stage III, empowerment focused on the implementation of the online market application, namely an application online purchase right for a set of SMEs are incorporated in the Society of SMEs Kendal Permai. To have an e-commerce application is, SMEs assisted to design the business processes used in the online market, among others, the rules of shopping, payment rules, the rules of the return product, buyer complaint rules, the rules of delivery, and the privacy policy that contains the legal agreement applies to protect the interests of trading transaction between owners and managers association online market, SMEs as a seller or

supplier of the product, and the buyer. At the third stage also made assistance to SMEs to be able to operate the application and execute business processes created through simulation. Thus, through the three stages of the empowerment model based on Information Technology for SMEs, it is expected the SMEs can be incorporated into the global market through the means and mastery of appropriate information technology applications, namely Weblogs and e-commerce applications with domain kendal-marketplace.com .

Display Home Online Market application SMEs Kendal can be seen in Figure 9.

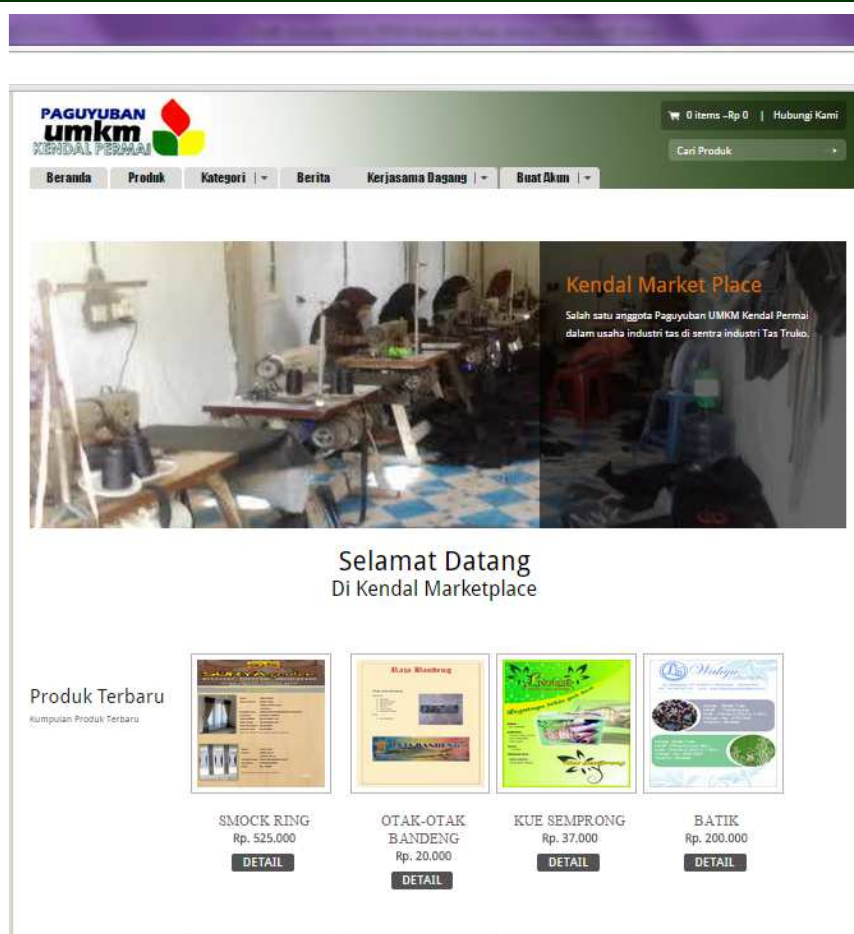


Figure 9. Display Home Online Market SMEs Kendal

To be able to run well, Online Market SMEs Kendal has a manager. Based on the results of the design, the organizational structure and job description of each department in the Online Market managers of SMEs Kendal loaded into standard operating procedures. Some of these departments include Administrators, Content Manager and Business Actor Liaison, Marketing / Customer Service, Administration and Finance, and Packaging and Shipping.

Application Online Market SMEs Kendal also comes with an application-based e-mail notification, with the aim of helping the manager and the Society can make transactions via mobile devices. This notification is implemented as an application of the members of the association, and the manager worked as SMEs, so often in locations outside of the home and the impact is hard to be in front of the computer.

The test system is an element of software quality assurance and presented the basic study of the specification, design and coding. The test

method used in the application system Online Market SMEs Kendal and application-based e-mail notification is a blackbox, because blackbox focus on the functional needs of the application or the system is built, and to find errors in several categories, namely: a function that is not true or no, errors interface (interface errors), the error in the data structure and database access, error performance (performance errors), initialization and termination errors.

Blackbox testing performed by the actors of the system, ie managers Online Market SMEs Kendal, a member of the Society as the owner and 1 (one) as a member of the buyer. Tests conducted on all processes in the application Online Market SMEs Kendal and application-based e-mail notification, among others registrerasi buyer, upload products by managing content, manage discounts by customer service, the process of shopping and ordering products by members buyer, prompt payment by the member buyers, and the last member of the buyer payment confirmation by customer service.

4. CONCLUSION

KKN PPM program in Kendal, namely SME Empowerment Information and Communication Technology Based Kendal Towards a Global Market can succeed, when using a model-based community development of information technology has three (3) stages: first, empowering management of information using information media. Second, empowerment means of promotion through social media. Third, the application of e-commerce empowerment as media buying and selling online. The results showed that community empowerment through information technology can help SMEs in marketing products or services effectively and efficiently with more pressing promotion or advertising costs.

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