Improving the Marketing Performance of Communities Affected by Covid-19 Through Digital Marketing

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Abstract. The majority of community work in Gumelar District are Indonesian migrant workers in Saudi Arabia and Taiwan and work in big cities and outside the island. The impact of the Covid-19 outbreak has caused a significant increase in the number of layoffs. Their income began to fall. Former migrant workers formed IPAKARUMI (Women's Association of Indonesian Migrant Workers' Families). Its goal is to help its members become economically self-sufficient. Entrepreneurship is a suitable alternative livelihood for migrant communities. However, the impact of this epidemic caused them to lose their market as the people's purchasing power weakened. Besides the hilly area, it was difficult for the community to mobilize resources, both raw materials and finished goods that were sold. The scope of problems faced for partner business units are aspects of increasing production capacity, aspects of marketing technology and aspects of center development/group development. The solution offered is referring to the priorities set in accordance with the theme of Strengthening Marketing with Information Systems such as strengthening product attribute improvements and optimizing various promotional media to expand the marketing area and assisting in making promotions through the web and social media (Digital Marketing). The real form of this community service is making a software development model through the E-Commerce application for IPAKARUMI MSMEs.

Keywords: Covid-19 · Digital marketing · Community service · Migrant workers · IPAKARUMI

1 Introduction

1.1 Situation Analysis

Gumelar District is located at the northwest end of the Banyumas Regency. The hilly area makes it difficult for the community to mobilize resources, both raw materials

and finished goods that are sold. The main roads between villages are not all in good condition, it takes a lot of effort for mobility. The distance from Gumelar sub-district to the district government center, namely the city of Purwokerto, is 31 km. The total population is 55,694 people [1]. Generally, productive age migrates to big cities and outside the island. Even Gumelar District is famous for its suppliers of Indonesian Workers (TKI) from Banyumas Regency.

As a result of the Covid-19 outbreak, the wave of layoffs (PHK) has increased significantly. Many formal workers have started laying off their workers [2]. This is also felt by productive residents from the Gumelar sub-district. Meanwhile, the Indonesian Migrant Workers Protection Agency (BP2MI) recorded those 100,094 Indonesian migrant workers (PMI) from 83 countries returned to their homeland in the last three months [3], including migrant workers from Gumelar District, the majority of whom work in Saudi Arabia and Taiwan. This causes open unemployment more and more. Open unemployment occurs as a result of declining economic activity, from technological advances that reduce the use of labor, or as a result of a decline in the development of an industry [4]. On the other hand, the people of the Gumelar sub-district who have been living in the village and have home businesses have also been affected by this pandemic. They lost their market due to the weakening of people's purchasing power due to the decline in economic activity during large-scale social restrictions in a number of areas [5]. When there is demand, they are hampered by raw materials because the raw material providers also do not have the ability to provide the raw materials needed, even though the stock is running low [6].

In an effort to maintain their business, many business actors make adaptations in running their business processes. In addition to diversifying which includes adding products, business fields and business locations, business actors are also turning to the use of the internet and Information Technology (IT) to maintain business and increase revenue. This is due to limited marketing in conventional ways as a result of social restrictions. So that online marketing is considered a promising solution. The survey was conducted by Statistics Indonesia regarding the impact of Covid-19 on business resulted that business actors stated that 4 (four) out of 5 (five) business actors or around 80% stated that the use of the internet and IT and online marketing had a significant impact on the level of sales of their products [7]. With increasing use of e-commerce which reached 87.1% [8], people prefer the use of e-commerce for purchase transactions for several reasons, namely: 1) prices are much cheaper, 2) shopping can be done anywhere, 3) faster and more practical, 4) lots of discounts and promos, and 5) easy to compare items to be purchased [9]. The method was used in implementing e-commerce for IPAKARUMI is prototype model based on WooCommerce Content Management System (CMS). WooCommerce is a WordPress plugin that transforms the website into an online store. In addition, WooCommerce is a flexible plugin that allows anybody with a basic understanding of WordPress to set up their own online store [10].

1.2 Partner Problems

From the analysis of the situation above, identification of the problems faced by partners is carried out:

1. Aspects of increasing production capacity: knitting produced is still based on orders and less marketable and Marketing Technology Aspects: products are selling value and unique but sales are still conventional so it's very depending on the offer from shop to shop,
2. Aspects of increasing production capacity for chips: less variety in terms of shape and taste while Marketing Technology Aspects: licensing stops, packaging is still simple, very dependent on offers from shop to shop,
3. Aspects of center development/group development: Decreasing the sale value of garbage deposit by the community, financial records are still simple, accumulation garbage that is not picked up by the garbage collector

1.3 Problem Solution

1. Production capacity increase: Solutions offered: Diversify souvenir products other than knitting with training and mentoring
2. Marketing Technology Improvement Solution offered: Optimizing media variety promotion to expand the marketing and mentoring area make promotions through the web and social media (Digital Marketing)
3. Center development/group development (waste bank) Solutions offered: Repair assistance bookkeeping, especially for the management of waste savings and Entering deposit transactions and waste canisters into the web

2 Implementation Methods

2.1 Methods

The method was used in implementing e-commerce for IPAKARUMI is software development with a prototype model. The model was built using WooCommerce plugins. The prototype model is used because the software development time can be done faster. In addition, users can experiment with early prototypes of e-commerce software and propose software changes as needed [11].

2.2 Stages of Completing

The following describes the phases/stages of completing the implementation method as shown in Fig. 1.

Starting with the communication phase, IPAKARUMI's e-commerce software development operations employ the prototype methodology. At this point, communication with IPAKARUMI is initiated in order to collect information about the company's profiles, activities, business units, and goods. Furthermore, observations were conducted at this stage to collect data on IPAKARUMI's business procedures in running their

Fig. 1. The phases/stages of completing the implementation method.

business divisions. In addition, the rapid plan stage is used to collect components of the e-commerce application's functional needs that will be produced [12]. A Use Case diagram is used to depict the rapid plan phase. Structured modeling may be done to satisfy the Modeling Quick design phase based on the findings of modeling the system's functional requirements. The design of e-commerce apps from the user's perspective is represented using structured modeling. Structured modeling also gives an overview of the design of input data and output data from the processing of e-commerce applications, as well as a more detailed description of the demands and characteristics of e-commerce applications.

As part of the implementation of the Construction of prototype stage, the next step is to create an e-commerce application prototype. WordPress and the Woo-Commerce plug-in were used to create an e-commerce application prototype [13]. Third-party plug-ins, such as the Woo Ongkir plug-in for calculating shipping costs, are also utilized to give capabilities tailored to user demands. The built e-commerce application is divided into two parts: 1) front end and 2) back end. The Front End part is a page for e-commerce administrators, whereas the Back End section is a customer-facing e-commerce application.

The user then evaluates the prototype development results, looks for application flaws, and provides input on how the program should be adjusted to meet the demands of the user. This phase concludes with an iteration of upgrading e-commerce application development in order to get outcomes that are in line with the wants and demands of consumers [14]. On the developer side, black-box testing is used using the test scenario depicted in Fig. 2. Meanwhile, users at the admin level test the application's back-end, while users at the level of prospective consumers test the application's front-end. As demonstrated in Fig. 3, testing from the user's perspective employs the black-box technique, with the testing strategy being Web Testing Strategies [14].
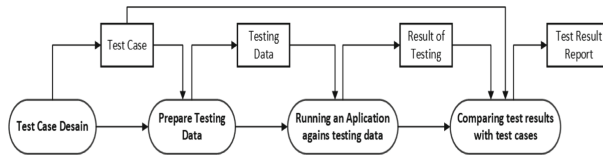
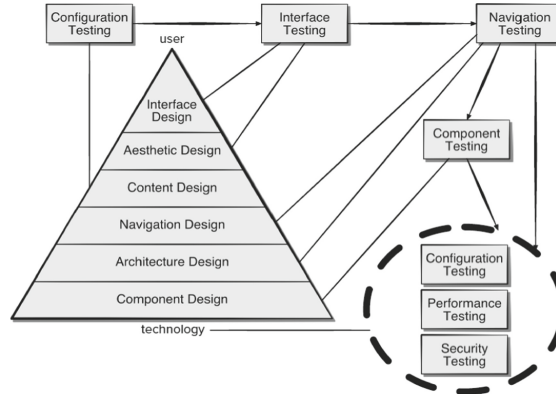**Fig. 2.** Testing scenarios on the developer side.

Fig. 3. Testing strategy on the user side.

3   Results of Service Implementation

Based on the completion phase of the preparation of digital marketing activities starting from the preparation stage then to the needs analysis stage. At this stage there are e-commerce software development activities starting with communication with IPAKARUMI to obtain information related to profiles, activities carried out, business units owned, and products owned by IPAKARUMI. In addition, at this stage observations were also carried out to collect data on IPAKARUMI's business processes in running their business units.

In the IPAKARUMI e-commerce application, there are two tiers of users: 1) admin and 2) potential consumers. 1) content administration or online content, 2) product management, 3) transaction management, 4) delivery courier management, 5) payment management, and 6) user account management are all available to the administrator. The construction of an e-commerce application prototype are separated into two components, namely: 1) front-end page and 2) back-end page.

3.1   Digital Marketing, Web E Commerce for IPAKARUMI

3.1.1   Main Page

The IPAKARUMI e-Commerce main page contains a list of featured products, the latest products, IPAKARUMI location addresses, the IPAKARUMI e-Commerce main page is shown in Fig. 4.
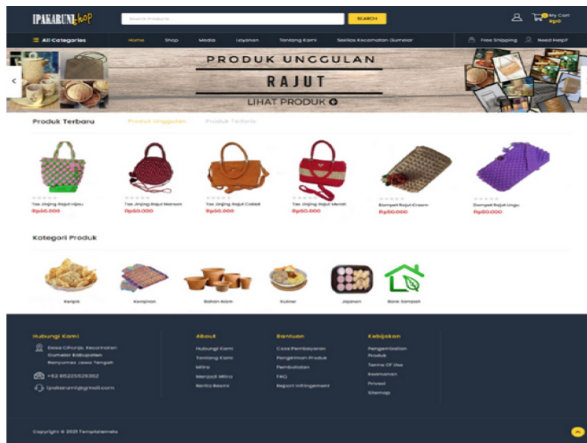
Fig. 4. The main page of website.

3.1.2 Product Category Page

Page the product category page goes through the "Shop" menu then selects the "Product category" sub-menu. Products marketed through the IPAKARUMI e-commerce application are divided into 7 categories, namely: 1) chips, 2) crafts, 3) natural ingredients, 4) culinary arts, 5) snacks, and waste banks. The division of product categories is based on the potential of natural resources and products produced by IPAKARUMI. The product category page is shown in Fig. 5.

3.1.3 Product Details

Page Product details can be indicated by selecting a product. The product detail page will then be displayed. The information displayed includes: 1) product descriptions, 2) data tags so that a product appears on search engine pages when the keywords entered are in accordance with the contents of the tags, 3) stock quantities, 4) product images, and 5) related products that display products. With the same tags. This is intended to provide offers to potential buyers regarding other similar products. The product detail page is shown in Fig. 6.

In addition to displaying product information, potential buyers can directly add products to their shopping cart. To add products to the shopping cart, prospective buyers can select the amount to be purchased and press the "ADD TO CART" button.

3.1.4 Prospective Buyer Registration

Page Before the prospective buyer makes a product purchase transaction, the prospective buyer is asked to register an account at the IPAKARUMI e-commerce. Registration is done by entering an active email address. After that, the IPAKARUMI e-commerce application will send a notification to the prospective buyer's email. After successful registration, prospective buyers are asked to fill in data including 1) First name, 2) Last name, and 3) address as shown in Fig. 7.
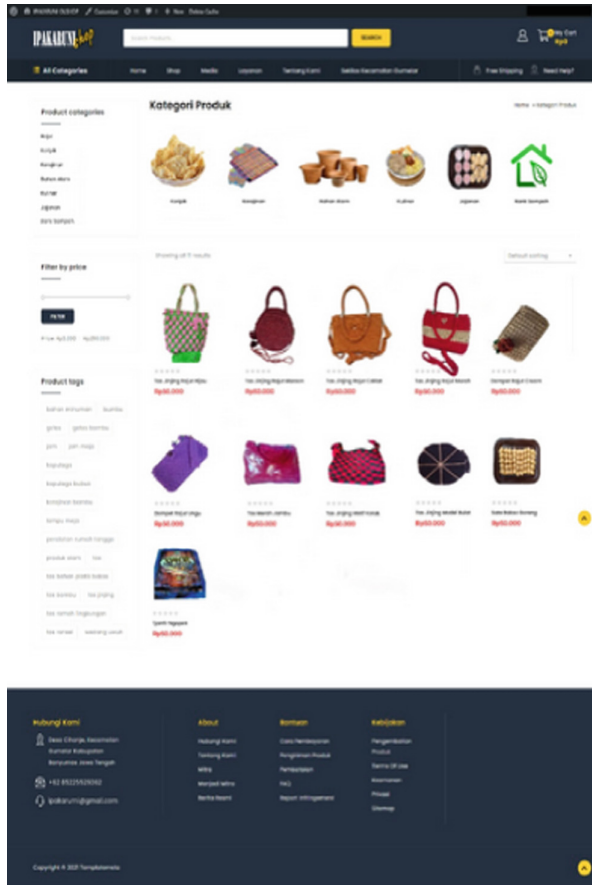
Fig. 5. Product category page.

3.1.5 Shopping Cart Page

After the prospective buyer completes the data, the purchase transaction can be carried out. The product for which the transaction will be made will be added to the shopping cart as shown in Fig. 8.

The IKAPARUMI e-commerce application will automatically calculate product delivery costs based on the selected courier rate and delivery location. The shipping costs displayed are the actual shipping rates from the selected courier service, this can be done because the IPAKARUMI e-commerce application uses the Application Programming Interface (API) from the Raja Ongkir plug-in which reads shipping rate data on the site of a shipping service.
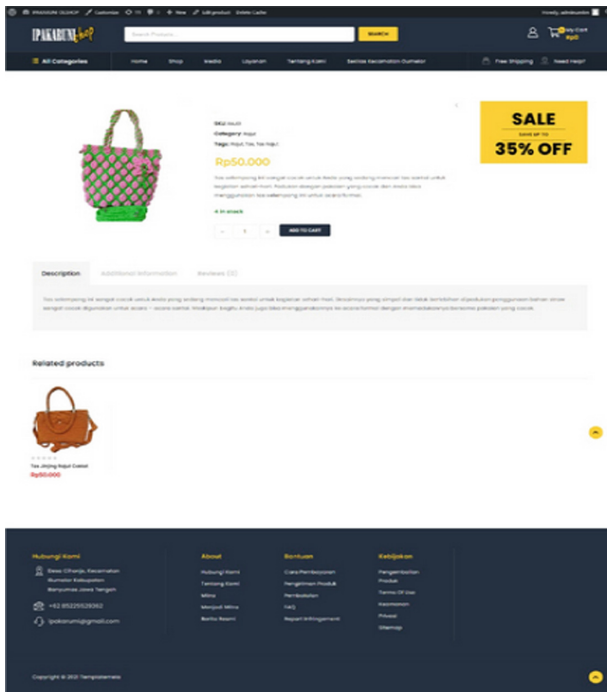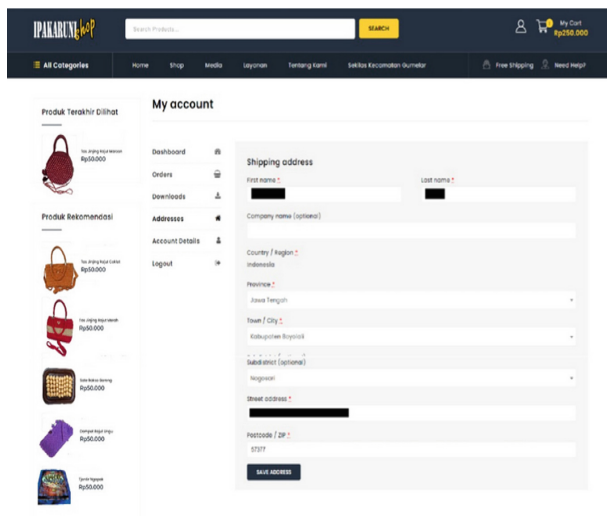
Fig. 6. Product details.
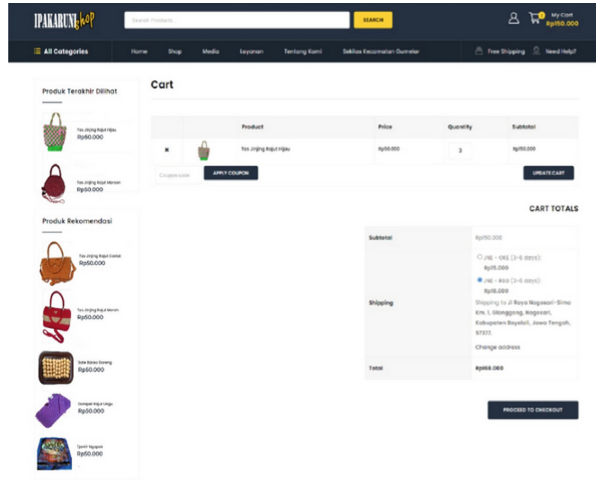

Fig. 7. My account.
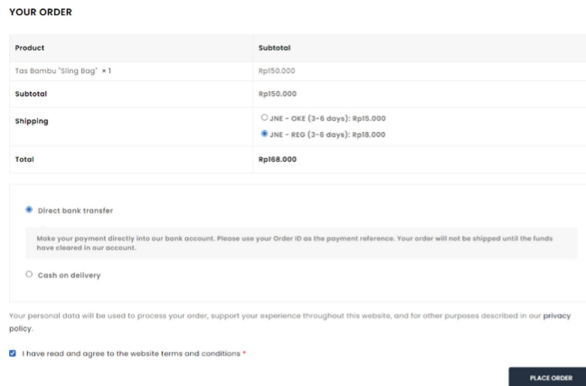
Fig. 8. Shopping cart page.

Fig. 9. Transaction process.

3.1.6 Transaction Process

Page the next process after the prospective buyer chooses the product to be transacted is the payment process. Payment methods available at IPAKARUMI e-commerce are using transfers to IPAKARUMI bank accounts and payment on the spot (cash on delivery). The payment method selection page is shown in Fig. 9.

3.2 Evaluation of Prototype Models

There are 5 (five) responders on the user side of the evaluation. According to Fig. 3, the following characteristics are assessed: 1) application interface, 2) content, 3) ease of navigation, 4) data security, and 5) application performance. Table 1 shows the evaluation findings from the user's perspective.

Table 1. Test results on the user side

No.	Statement	Score				
		1	2	3	4	5
1	The appearance of the e-commerce application is convenient for users	87	80	88	94	98
2	Consistent positioning of components in e-commerce applications	79	96	80	83	98
3	Easy to read information presented on e-commerce applications	82	96	81	80	79
4	The arrangement of information presented in e-commerce applications is very clear	93	93	90	92	97
5	The terms used in e-commerce applications are easy to understand	86	98	83	82	98
6	E-commerce applications can be used easily by all levels of users	89	86	78	79	80
7	Easy-to-use e-commerce application navigation to interact between e-commerce applications and users	95	83	97	98	80
8	The process in e-commerce applications is in accordance with the design	88	84	92	84	96
9	Customer data applications in e-commerce are well protected and prevent data from being used by unauthorized parties	78	93	97	82	88
10	E-commerce applications can ensure transactions are used by real parties	91	87	80	98	92
11	E-commerce applications have high reliability	78	82	83	88	86
12	E-commerce applications provide a fast response to orders given by the user	92	83	95	81	95
Average Score		86.50	88.42	87.00	86.75	90.58
Average Value		87.85				

4   Conclusion

Digital transformation from offline to online in the covid era is very necessary. This transformation is one of the business solutions in order to survive during the Corona pandemic. This market place can be used for other products from one village to another in the Gumelar sub-district.

According to user's testing, the user-side test results have an average value of 87, 85. This result implies that the IPAKARUMI e-commerce program has met user expectations and is simple to use for users of all skill levels. Furthermore, the information supplied is

simple to comprehend, as seen by the average values of 5 (five) responders in statements 3 and 4 of 83.6 and 96, respectively. In terms of navigation, e-commerce apps have clear navigation and procedures that follow the desired design. The mean values of 90.6 and 88.8 were established. E-commerce apps are thought to be capable of ensuring the integrity of user data from a security standpoint. These results are consistent with the average values of assertions 9 and 10, which are 87.6 and 89.6 respectively. Finally, e-commerce apps are regarded to have good performance based on the average values of assertions 11 and 12, which are 83.4 and 89.2, respectively.

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