

## **DESIGN OF *PADIBON APPLICATION AS E-MARKETPLACE FOR MSME ACTIVITIES IN CIREBON CITY USING THE LARAVEL FRAMEWORK***

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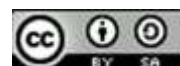
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**Abstract:** The government's effort to improve the community's economy is to give birth to Micro, Small and Medium Enterprises (MSMEs) in the midst of the community. The people of Cirebon city are people who are starting of being a productive society, so that MSMEs are born in the city of Cirebon. However, limited land for the process of buying and selling and marketing products has, in MSMEs being run by the community often resulting in bankruptcy due to market competitiveness. So to overcome this problem, we need a media that can distribute the results of MSME products for the people of the city of Cirebon without having to have land to sell products. This research was conducted of building an E-Marketplace (Digital Market) system that is used by the people of the city of Cirebon to promote, sell and buy the products of the Cirebon city community's MSME products online based on a Website . Apart from that, with the E-Marketplace, it can help MSMEs in the city of Cirebon continue to run their business during this pandemic even though there are Community Activity Restrictions (PPKM). In this study, the research method applied is the System Development Life Circle, where the method includes the process of data collection and analysis, system design, system development and system implementation and system testing. The results of this application design will be named Padibon . So with this Padibon application, MSME actors in marketing their products, and consumers can buy MSME products anywhere and anytime.

**Keywords:** E-Marketplace; Frameworks; MSMEs; SDLC

**Abstrak:** Usaha pemerintah dalam meningkatkan perekonomian masyarakat adalah dengan melahirkan Usaha Mikro Kecil Menengah (UMKM) didalam lingkungan masyarakat. Masyarakat kota Cirebon merupakan masyarakat yang mulai menyadari pentingnya menjadi masyarakat yang produktif. Namun keterbatasan lahan untuk proses jual beli dan pemasaran produk mengakibatkan UMKM yang di jalankan oleh masyarakat seringkali mengakibatkan kebangkrutan karena daya saing pasar. Maka untuk mengatasi masalah tersebut, diperlukan sebuah media yang dapat menyalurkan hasil produk UMKM masyarakat kota Cirebon tanpa harus adanya lahan tempat menjual produk. Penelitian dilakukan untuk membangun sebuah sistem *E- Marketplace* (Pasar Digital) yang digunakan oleh masyarakat kota Cirebon untuk mempromosikan, menjual dan membeli hasil-hasil produk UMKM masyarakat kota Cirebon secara online berbasis Website. Selain dari itu, dengan adanya aplikasi ini maka dapat membantu UMKM masyarakat kota Cirebon tetap menjalankan usahanya di masa pandemi ini walaupun terdapat Pemberlakuan Pembatasan Kegiatan Masyarakat (PPKM). Pada penelitian ini, metode yang diterapkan adalah *System Development Life Circle*, dimana metode tersebut meliputi proses pengumpulan dan analisis data, *design system*, *development system* dan implementasi sistem serta pengujian sistem. Hasil dari perancangan aplikasi ini adakan diberi nama Padibon. Maka dengan aplikasi Padibon ini, pelaku UMKM dapat memasarkan hasil produknya, dan konsumen bisa membeli produk UMKM dimanapun dan kapanpun.

**Kata kunci:** E-Marketplace; Framework; SDLC; UMKM



## INTRODUCTION

Growth the economy in Indonesia is in stages category low compared with growth the economies of ASEAN countries. This thing occur because Indonesian people more many Becomes consumptive society \_ than a productive society . \_ Moment this is more Indonesian many import goods from outside country instead of exporting goods out . So Thing this prove that public Indonesia not yet capable produce alone so that should import product from outside . So from that need Indonesian people must Becomes productive society \_ with provide various type goods and services by economy independent in accordance with needs and development technology information , for growth the economy in Indonesia is increasing [1].

Micro, Small and Medium Enterprises (MSMEs) are state economic actors that have a large enough contribution to create jobs (Central Bureau of Statistics 2010). MSMEs are a goods and services trading business managed by groups or individuals refers to productive economic businesses in accordance with the criteria stipulated by Law Number 20 of 2008 [2]. MSMEs have an important role for the region, especially as a driver of economic growth and regional progress as well as regional superior products can with easy known and become a business opportunity for micro-enterprises in the city of Cirebon [3]. Currently, several MSMEs run their businesses traditionally by marketing their products conventionally, this has resulted in MSME products not being widely marketed. In addition, with the COVID-19 pandemic, several MSMEs were forced to stop their operations due to PPKM.

To overcome these problems,

MSMEs need a breakthrough in increasing product marketing widely and continue to operate during this Pandemic by using advances in information technology such as *E-Marketplace* . *E-Marketplace* can be said as a form of development of *E - Commerce* with the priority of expanding the combination of consumer business (B2B, C2B and C2C) into B2B which is defined as bringing together consumers and sellers according to consumer needs and offering convenience in transactions [5]. The form of the process or business model on *the E-Marketplace* is shown in Image 1.



Image 1. *E-Marketplace* Business Model

*E-Marketplace* can be part of a marketing and promotion strategy for MSME actors. This marketing is carried out by the company aimed at meeting the needs and desires of consumers from products or services in the hope of providing benefits to consumers and increasing company profits [6]. While the marketing strategy action in making decisions regarding costs, marketing mix and allocation of products in relation to the expected environmental conditions and competitive conditions [7].

promotion is an activity that has the aim of conveying information and influencing, persuading and encouraging consumers to have an attraction to marketed goods or services [8]. In promoting products and services, there are several promotional strategies that are

carried out, namely, *Customer Orientation*; *Prioritizing Total Quality Management*; focus on *convenience*, *comfort* and *enjoyment*; *Product Innovation*; *time Compression Management*; *Customers Satisfication* [9].

*E-Marketplace* is built based on a website so that it can be accessed online by MSME actors and consumers and the application is built using the *Framework Laravel* and the application is named with *PADIBON*. So using *E-Marketplace* can help MSME actors in promoting and marketing products, and consumers can transact online even during this pandemic.

## METHOD

Method in development Padibon Application this is h *System Development Life Circle* (SDLC) where process from development system will done by gradually and sorted. As for the picture stages of the SDLC as in Image 2.

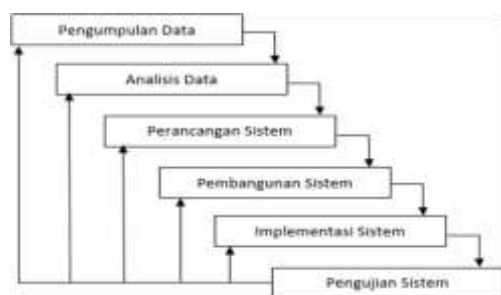


Image 2. SDLC Method for E-Marketplace Applications

### Data collection

Data collection study This is done in several stages, the initial stage is to conduct interviews and collect data at the Department of Trade, Cooperatives, Small and Medium Enterprises. The data collected in the form of some data on SMEs in the city of Cirebon. The second

stage is direct observation of MSME actors and interviews with MSME actors to find out their needs for the use of technology in their business. The data collected is some data on products sold by MSMEs.

The third stage is to make observations on several *E-Commerce applications* such as Shopee, Lazada, Bukalapak and Tokopedia. This observation aims to determine the process or flow of the application that will be made by taking the concept of several existing *E-Commerce*.

### Data analysis

Based on the data obtained, data analysis can be carried out with the aim of knowing and classifying what data will be used in the development of the padibo application. The data requirements in application development are shown in Table 1.

Table 1. Data Requirements

No	Main Data	Details
1	User Data	- admin - customer - seller
2	Product Data	- category - brand - product
3	Promotion Data	- Promo Time - Discount
4	Transaction Data	- Bank Account - Sale - Purchase

Based on the table above, then the system design is carried out.

### System planning

System design aims to determine the flow of the system and how the appearance of the system. The design carried out is the design of the system model and the design of the *User interfaces*.

In this study the system model

design uses the *Unified Model Language* (UML). UML can be defined as a tool or model for designing an Object-Oriented-based *software* [10]. The UML used in the design of this *E-Marketplace application* system model use *Use Case Diagrams*, *Activity Diagrams*, *Sequence Diagrams* and *Class Diagrams*.

*User Design Interface* is a design that has interaction between humans and computer devices to be able to work together so that needs can be met efficiently and effectively [11]. *User Design Interface* is done by considering touch, sight, hearing, 2-way communication and direct understanding.

### System Development

The development of this application system is carried out using the . The *framework* is a collection of *scripts* (composed of *classes* and *functions*) that can help *developer programmers* in the process of working and *problem solving* in programming so that they are focused and faster in system development [12]. The *framework* used in the development of this application is the *Framework Laravel*, caused by *laravel* have faster performance, faster data reload, data security and especially having complete and ready -to -use libraries [13].

### System Implementation

System implementation aims to implement the system so that the system can be used and can be tested. System implementation is done by hosting the application and creating a domain for the application. Applications that have been implemented can be accessed by using the website address <https://padibon.store> and can be accessed on platforms that have internet access.

### System Test

The test that will be carried out on the application is the *Blackbox* method. It aims to find out whether all the features in the application are running well and according to user needs.

## RESULTS AND DISCUSSION

After designing the system model, the system can be built and implemented. The results of the *Padibon* application that have been built are as follows.

### Admin

In this view, the admin can manage product data that has been entered by the seller, the admin can deactivate the product, the admin can also disable sellers and consumers, as shown in the Picture 3.



Image 3. Administrator

### Product Data

This product data can be used by sellers to manage their product data, such as activating products, changing prices and others, as in Image 4.



Image 4. Product Data Display

## User Registration

For users who want to make a purchase, they must register first in order to enter the padibon.store system, for the registration form as shown in Image 5.

Image 5. User Registration

## Dashboard

The following is the dashboard display on this display, there is a menu of goods for categories of goods, from this display consumers can see MSME products without having to log into the system, for this view it can be seen in Image 6.



Image 6. Dashboard

## Order Product

The product order display is used by consumers who have accounts to shop and place orders from products, as shown in Image 7.

No	Nama	Alamat	Nomor Telepon	Jumlah Pesanan	Status Pesanan	Tanggal	Aksi
1	Umm Cirebon	Jl. ...	...	...	...	...	...
2	Umm Cirebon	Jl. ...	...	...	...	...	...

Image 7. Order Product

## CONCLUSION

An E-Marketplace application with the name padibon.store which can be accessed through a platform that has internet access. This padibon.store application can be used by both MSME players in marketing and promoting their MSME products and it is hoped that Cirebon City MSME products can be widely known by the public. For customers, they can buy products online without having to come to the location or market. With this Padibon application, it can provide convenience for users in transacting buying and selling products during this Covid-19 pandemic.

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