

## E-commerce [www.blonjo.online](http://www.blonjo.online) as Climate Change Campaign by Micro, Small and Medium Business Enterprise

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### ABSTRACT

This article describes the development of an e-commerce web-based used to offer micro, small and medium enterprises (MSMEs) products from the community of Indonesia Council for Small Business (ICSB), Sukoharjo Regency. MSMEs entrepreneurs adopt information technology (IT) as marketing their marketing tools. To engage participation in climate change adaptation and mitigation, [www.blonjo.online](http://www.blonjo.online) provide positive content from the entrepreneurs as the awareness campaign. Development of [www.blonjo.online](http://www.blonjo.online) considers input from ICSB Sukoharjo to identify and situation analysis problems entrepreneurs face in the e-commerce platform. Some mentoring was conducted to increase understanding of climate change issues and their impact on environmental damage, green marketing, photography, and copywriting. Based on the need for information system specification, e-commerce was developed and tested for the design and performance of information systems, then prototyping. MSMEs entrepreneurs upload their climate change campaign in three climate change adaptation and mitigation categories: taking more efficient raw materials, avoiding non-renewable materials in production, and using environmentally friendly packaging.

### KEYWORDS

e-commerce  
MSME  
climate change

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### 1. Introduction

Micro, Small, and Medium Enterprises (MSMEs) have a strategic role in supporting the national economy's growth after the Covid-19 pandemic. The contribution of MSMEs to Indonesia's GDP increased to about 60% before the pandemic. The employment participation rate by MSMEs is also very high and continues to grow, reaching 96.99% – 97.22%, with the number of MSME entrepreneurs running 62.9 million or about 98% of national entrepreneurs national (Azizah, FN et al., 2020).

ICSB, the Indonesia Council for Small Business, is a non-profit organization focusing on education, research, and exchanging ideas for developing MSMEs. ICSB aims to 1) become a receptacle or a platform for four pillars that have a role important in the empowerment of MSMEs in Indonesia, namely: researchers, academics, government, and actors business, 2) become part of a global effort to empower entrepreneurs in micro, small and medium enterprises (MSMEs) through activity sharing information and experience, 3) bring best practices related empowerment of MSMEs in Indonesia to the international world and vice versa. The ICSB targets MSMEs to be professional, productive, creative, and entrepreneurial (Amri, A., 2020).

To achieve the targets, ICSB runs an effort to develop a curriculum and coaching program to increase the ability and power of competitive entrepreneurs in small and medium enterprises (MSMEs) in Indonesia and develop and publish study-related empowerment efforts for small and medium enterprises (MSMEs). In addition, the ICSB builds work between researchers, academics, government management, and business actors to promote MSMEs in Indonesia; and facilitates the



sharing process of information and experience between interested parties with the empowerment of MSMEs in Indonesia and the world.

However, with the advancement of information technology (ICT) and the demands of the times, e-commerce is needed as a promotional tool. Prospective clients need more information than just what is in other promotional media. In addition, digital technology can reduce waste from traditional promotional tools to support sustainable development programs (SDGs), especially those related to the environment and adaptation to climate change mitigation. This is why e-commerce, namely [www.blonjo.online](http://www.blonjo.online), must be well-designed and can display the image of the products/services. The brand of MSMEs products can reach a broader and better image if related to the general threat acknowledged by (potential) buyers, in particular climate change adaptation and mitigation.

**2. Method**

The method uses participatory action research with Quality Function Deployment (QFD) Approach to obtain information in designing a digital platform based on potential users. Input from prospective users, namely ICSB members in Sukoharjo Regency. Start with the identification and situation analysis of the problems faced by partners.

Based on this, information system specifications are obtained, concept development and selection, information system design testing, design analysis, and prototyping are obtained. Providing solutions in the form of training and assistance, as well as monitoring and evaluation, are carried out so that partners become focused, skilled, and professional in these fields.

**3. Result and Discussion**

ICSB in District Sukoharjo was established in 2019 and managed branches in 12 districts. ICSB Sukoharjo means to help MSMEs for more understand the factors that must be prepared to enter the modern and more extensive market. The number of MSMEs joining each sub-district is around 50 – 80 MSME actors from various types of MSME businesses (District ICSB Data Sukoharjo). It is almost 5% of MSME Sukoharjo Regency numbers.

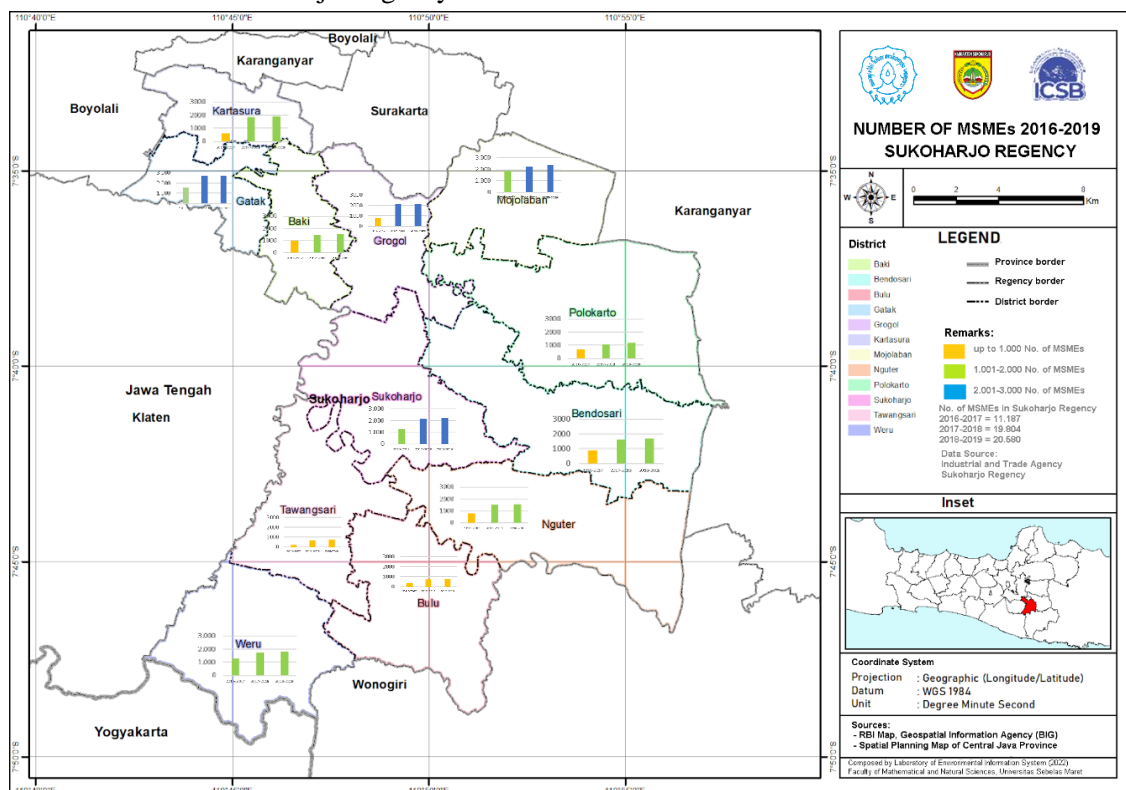


Figure 1. Distribution of Sukoharjo Regency’s MSMEs

Various activities such as training and seminars on entrepreneurship mean to increase quality and power competitive conducted with the hope that MSME products also have the same standard as more modern products before dominating the market. ICSB Sukoharjo put the organization to bridge or support the entrepreneurs' efforts on every scale (micro, small, medium) even until export so they can elevate to the upper class for quality, licensing, concept and marketing.

As a promotional support tool, the e-commerce of MSMEs Sukoharjo Regency, [www.blonjo.online](http://www.blonjo.online), has the advantage of giving detailed and complete information on products and services. Compared to advertisements (which have limited space), even on a business card, there are links to websites that are listed in various places, such as business cards and business name boards; prospective customers will access the e-commerce and contact them directly for the benefit of the sellers as well as good services that have the potential to be purchased.

In advertising media, there is brief and limited information. E-commerce can contain writings up to detailed technical specifications. A good display will give an excellent image to partners or potential customers. When visiting [www.blonjo.online](http://www.blonjo.online), partners and potential buyers will capture a picture and description of the MSMEs products as the seller upload. E-commerce [www.blonjo.online](http://www.blonjo.online) contains exciting content that can attract partners and potential customers to contact the seller directly. Of course, there is a copywriter role that is indispensable for a good website. Although other media also provide an image, the website has the advantage of content that can be more.

Content that is always up-to-date. Visitors to the ICSB website will always be faced with the latest information on our products/services as long as we continually update the information. However, the last important details will not be difficult to find because they can be presented briefly through the link. This differs from channeling social media, making it difficult to find previous information. For other promotional media, most of us have to redesign.

Website as a determination of organizational identity and SMEs. Currently, the website address is one of the identities. On the website, ICSB Sukoharjo Regency can confirm its identity and translate its vision and mission. As for e-commerce, ICSB Baki Sub-district can contain offers of goods and services for SMEs as appropriate as a shop or online market. Line.

Internet users are increasing day by day. The number of internet users is growing daily, and their reach has expanded because internet costs are getting cheaper. The output of this IBM is in the form of an ICSB Information System Product in Sukoharjo Regency, an Information System that functions as E-commerce for MSMEs in Baki District.

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Identify the information system needed by MSMEs in Baki District, especially those under membership in ICSB (Indonesia Council for Small Business), Conducted o, online considering the conditions still high in the spread of Covid-19. The discussion was conducted online through social media, in this case, WhatsApp, with the ICSB management, Baki District, Sukoharjo Regency.

The need for information systems discussed begins with the basis of the platform used. In this case, the medium is web-based. The web base was chosen because it is easy to access without having to install it so that it can run on various devices, both on mobile phones and computers or laptops. We then discuss the web base that provides flexibility in terms of the operating system that is open or not tied to operating specific systems. This information system, as web-based e-commerce, can be accessed from devices using Windows or using IOS in Apple products and is easily accessible by those who will use Android-based devices.

The use of a Google account to provide this website was later developed in script development the website so that it can be managed according to input data for MSME products or services. Today Google accounts are used for hosting with a capacity of 15 gigabytes and already have

templates for databases and content management. However, the content management template provided by blogger or blogspot Google has a weakness: the interface that does not support the presentation of MSME products or services.

The information system specification developed uses the existing platform at Google, which is based on Blogspot or blogger.com. The choice of Google as a development platform is because it has been proven stable and provides opportunities for website development using the platform.

The ease of choosing product and service categories is the development of interface themes (interface) and selection of experience concepts (user interface and user UIUX experience) that visitors get in this website-based information system. Furthermore, this information system will offer convenience for communicating with sellers of existing products and services through widely used social media, namely WhatsApp.

To facilitate socialization and access to this information system, an address is prepared for the information system to develop product and service sales from MSME members of ICSB, Baki District, and Sukoharjo Regency. The address used is the virtual world address resulting from discussions and trials that have been carried out with the domain rental party. The original address of this website-based information system is 142.251.12.121, and then the address change process is carried out to use [www.blonjo.online](http://www.blonjo.online).

Testing this information system is done by communicating between the computer terminals to the server that serves this website on the Google server. The PING test, which makes contact between the website servers, produces a response speed of PING, sending between 28ms to 36ms. This can be classified as a fast response because it has a response speed of one-third of 1 second. This response is the same whether the actual address is used or the base domain address is set up.

```
C:\Users\Sunarhadi>ping 142.251.12.121

Pinging 142.251.12.121 with 32 bytes of data:
Reply from 142.251.12.121: bytes=32 time=36ms TTL=109
Reply from 142.251.12.121: bytes=32 time=29ms TTL=109
Reply from 142.251.12.121: bytes=32 time=28ms TTL=109
Reply from 142.251.12.121: bytes=32 time=29ms TTL=109

Ping statistics for 142.251.12.121:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 28ms, Maximum = 36ms, Average = 30ms

C:\Users\Sunarhadi>ping www.blonjo.online

Pinging ghs.google.com [142.251.12.121] with 32 bytes of data:
Reply from 142.251.12.121: bytes=32 time=28ms TTL=109
Reply from 142.251.12.121: bytes=32 time=29ms TTL=109
Reply from 142.251.12.121: bytes=32 time=32ms TTL=109
Reply from 142.251.12.121: bytes=32 time=28ms TTL=109

Ping statistics for 142.251.12.121:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 28ms, Maximum = 32ms, Average = 29ms
```

Figure 2. PING results to a website server managed by Google

Web design consists of the structure of the information that is conveyed. That is, starting from the existing product and service categories, then proceeding with the layout that will be part of the interface. Building a professional site requires preparation, good planning, and repeated experimentation because it involves all the elements that make up a site. There are at least five

criteria for determining the success of a site, including what site you want to create, which visitors will be expected to visit, and what activities can be done on the site. The targets to be achieved from making the site. Next, keywords are set for the site.

Things that must be considered in making a website in addition to those already mentioned are:

1. The information system is good, quality, and constantly updated

Good material or content, especially concerning the information needed by the user/user, is the main reason for a visitor to access the site. Sites that provide good, current, and exciting news, of course, will have many visitors, so there is a reasonably popular term "Content. "is king "- "content is king." So, prepare the material/materials from the site properly.

2. Fast and easy to access

The ideal loading time for a specific site is 30-50 seconds. If more than that, visitors are usually lazy and leave the area; this is undoubtedly very detrimental, especially for sites that offer products, which means that consumers will lose.

The loading speed is 1kb per second; this includes the speed calculation on the computer with the slowest access. So, the key is to keep the file size and the total file size for a web page (including graphics not more than 50 kb, especially on the front page or homepage. (index.html).

3. Beautiful design and animation

Beautiful animation and design usually involve various effects, photos, graduations, and more, and it will increase the size of the web page; imagine if, in the header (top) of your site, there is a logo with various effects and graduations, then added with photo decoration. Thus, of course, the size of the graphic in the header can reach 100 kb alone; this is undoubtedly very slow for the website.

Therefore, specific techniques are needed to use graphics on web pages effectively and efficiently so that bandwidth and loading times can be accelerated, including using graphics ( optimizing ) techniques by reducing colors and graduations and using appropriate formats to reduce the size of the graphic file, but does not reduce the quality of the graphics.

4. Intense promotion

A successful website comes not only from planning, good animation, and a good database but also that must be considered is the intense promotion of the website created, especially on search engine sites ( search engine). Engines), such as Google, Yahoo, Altavista, SearchIndonesia, and others. Or it can be through banners; it's free stuff (free stuff like downloads, e-books, wallpapers, screen savers, and others), mailing list/ mailing list (discussion forum), mass media, TV, via email, and so on. The point is to make the site known to everyone, especially the desired target visitors.

System analysis is the decomposition of information consisting of a complete information system into its parts to identify and evaluate problems, opportunities/opportunities, and obstacles that occur and the expected needs so that improvements can be proposed.

The basic steps taken in analyzing this system are as follows:

- a. Identification of problems
- b. Analysis of existing systems
- c. System development

The web is a valuable tool for expressing ideas. Adding sound, images, and videos will create interactive documents that attract readers to visit our website anytime. Therefore, you must first organize your thoughts and develop specific strategies before starting a web document, namely ( 1 ) Determining goals, determining the plan in creating a web document is to show and say it clearly and not hide these intentions. This is because it ensures readers know what they are reading and respects the reader's time by clearly conveying the purpose. (2) Determine the target audience for the web page. On the web, published documents reach not only one or several cities in a country but also all countries that use different languages. But in making this information system, the

author limits it to using the national language, Indonesian. But there is no harm in considering the document to be made in two languages. In this way, it is ensured that the website publication will reach many readers.

Good document management is not only essential but can save time. Write down the document's structure in a clear framework that does not deviate from the stated goals and objectives of the reader. Things to note a. Opener for introducing the paper to the reader accompanied by a brief review of the document's purpose, b. Closing that uses this section to make a summary or ask for suggestions and opinions from readers, and c. The main menu introduces the contents of the entire website content.

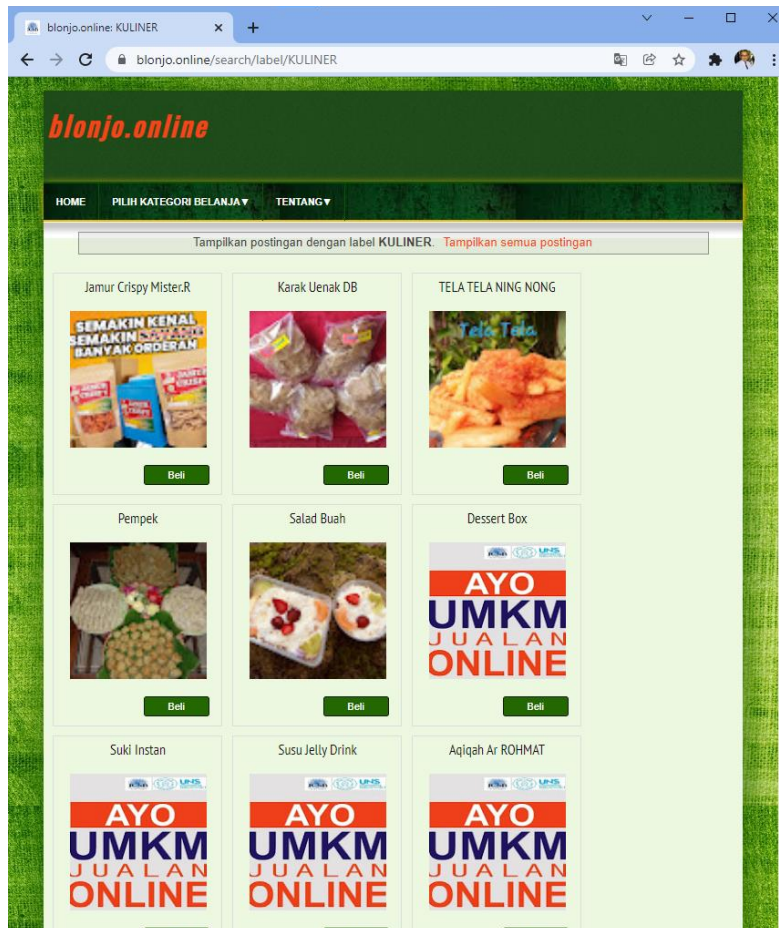


Figure 3. Information System Display Web-based for Marketing MSME Products and Services in Baki. District

The positive content in reducing waste can be seen in one of the MSME product uploads that reuse leftover flour for animal feed. The positive content related to plastic reduction is packaging that does not use plastic. Likewise, there are MSMEs that plan to replace glass cups with paper and ropes with hemp material. Excerpts from [www.blonjo.online](http://www.blonjo.online) as examples of positive content are as follows.

.... You don't have to worry about eating at \_\_\_ because the remaining unused flour is not thrown away but is bought by collectors for fish feed so it doesn't pollute the environment.... ([http://www.blonjo.online/2022/08/dqira-chicken -steak.html](http://www.blonjo.online/2022/08/dqira-chicken-steak.html)).

.... The packaging used does not contain plastic and minimizes inorganic waste (<http://www.blonjo.online/2022/08/aniila-stuff.html>).

.... For now, we have used cardboard packaging to reduce plastic waste. In the future, the bite variant will use paper cups, we will also minimize the use of tape instead of hemp rope (<http://www.blonjo.online/2022/08/biteaddictsmg.html>).

#### 4. Conclusion

Result of devotion Public this is arranged system information web-based for MSMEs in Baki sub-district integrated website form direct to number Whatsapp MSME actors. ICSB management has equipped Website management and advertising on social media.

Social media strategy monitoring plan and content management [www.blonjo.online](http://www.blonjo.online) conducted with making activity advanced especially prepare more content \_ attractive and quality.

The form of positive content uploaded through [www.blonjo.online](http://www.blonjo.online) is an example of an application by MSME actors in climate change adaptation and mitigation. The state is positive about reducing waste, plastic use, and environmentally friendly packaging.

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