

Introduction to Digital Business through E-Business, E-Commerce, Website CMS, SEO, and SEM

Rr. Isni Anisah Puspowati Harori¹, Adi Suwarno², Yasfi Mahadi³,
Azka Faris Ghalba⁴, Oka Ramdani⁵, Reviya Agustina⁶, Regan⁷, Alfian⁸,

Ajeng Nabila Budiman⁹, Nazwa¹⁰, Argya¹¹

^{1,2,3,4,5,6,7,8,9,10,11} STMIK Mardira Indonesia, Bandung

Email: Isnikng81@gmail.com¹, adisuwarno@stmik-mi.ac.id²,

yashfimahadi26@gmail.com³, , azkafaris106@gmail.com⁴,

okaramdani2004@gmail.com⁵, reviyaagustina@gmail.com⁶,

regan17122004@gmail.com⁷, alfiancrazh9318@gmail.com⁸, ajeng2224@gmail.com⁹,

radentanu201@gmail.com¹⁰, argyemitfahnur99@gmail.com¹¹

Abstract

The community service team, comprising academics and students, conducted activities to examine the implementation of digital technology projects that offer substantial opportunities for youth to engage in online business. Many vocational high school students still lack sufficient understanding and skills in modern digital business concepts, such as E-Business, E-Commerce, CMS-based website management, and digital marketing strategies like SEO and SEM.

This initiative aimed to provide education and practical training to students at SMK Marhas Margahayu, helping them understand and apply digital business principles. The strategy included interactive workshops with theoretical presentations, direct demonstrations, practical lessons on creating online stores with WordPress, and simulations of digital marketing tactics.

Using a pre-test and post-test methodology, along with observations of student participation, the findings revealed significant improvements in students' understanding of digital business and increased interest in entrepreneurship. This initiative aims to promote digital entrepreneurship among vocational high school students and can be replicated in similar institutions.

Keywords: Community Service, Digital Business, E-Commerce, CMS, SEO, SEM

*Rr. Isni Anisah Puspowati Harori¹, Adi Suwarno², Yasfi Mahadi³,
Azka Faris Ghalba⁴, Oka Ramdani⁵, Reviya Agustina⁶, Regan⁷, Alfian⁸,
Ajeng Nabila Budiman⁹, Nazwa¹⁰, Argya¹¹*

Introduction

The digital revolution in contemporary society has profoundly impacted nearly all sectors, including the business sector. E-Business and E-Commerce concepts offer innovative options for effectively and extensively engaging consumers without geographic constraints. Digital enterprises have significant prospects, particularly for youth, to initiate independent firms with minimal capital and extensive market access.

Nevertheless, students at vocational high schools, as prospective entrepreneurs, have not completely comprehended the potential and procedures of digital business. Preliminary assessments at SMK Marhas Margahayu indicated that the majority of students encounter challenges in comprehending and employing digital platforms for entrepreneurship, encompassing website development, content administration, and the application of digital marketing techniques such as SEO and SEM.

According to research by Tiago & Veríssimo (2014), digital marketing competencies are crucial in the contemporary corporate landscape. A separate study indicates that the incorporation of technology in entrepreneurship education can improve creativity, motivation, and entrepreneurial preparedness (Sidharta & Rahmahwati, 2023).

1. Based on these challenges, this Community Service activity was designed with the following main objectives:
2. To provide a basic understanding of the concepts of E-Business and E-Commerce.
3. To train students in creating and managing online store websites based on a CMS (WordPress).
4. To introduce digital marketing strategies through SEO and SEM.
5. To increase students' motivation to enter the digital business world independently.

This exercise aims to offer theoretical insights while equipping students with practical skills through an interactive, hands-on approach.

Method

The Community Service implementation team employed an educational and participatory approach through systematic and interactive hands-on training. The activity took place at the Marhas Margahayu Vocational High School in Bandung Regency in May 2025, involving a team of lecturers, student mentors, teacher mentors, and eleventh-grade Business and Marketing students as the primary participants.

1. Activity Design

The activity was carried out in the form of a workshop, with the following activity structure:

- a. **Session I:** Presentation of basic e-business and e-commerce material.
- b. **Session II:** Introduction and hands-on practice of creating a website using a CMS (WordPress).
- c. **Session III:** Introduction to digital marketing strategies based on SEO (Search Engine Optimization) and SEM (Search Engine Marketing).
- d. **Session IV:** Interactive discussion and presentation of practical results.

Each session is designed to encourage active participant engagement through hands-on practice, discussion, and Q&A.

2. Subject of Activity

The subject of the activity consists of:

- a. **Participants:** 30 eleventh-grade students majoring in Business and Marketing at SMK Marhas Margahayu, selected based on their interests and recommendations from the school.
- b. **Facilitators:** Lecturers and students from the PKM implementing institution with backgrounds in information technology and digital entrepreneurship.
- c. **Supporters:** Entrepreneurship and Information Technology subject teachers at the school.

3. Implementation Techniques

*Rr. Isni Anisah Puspowati Harori¹, Adi Suwarno², Yasfi Mahadi³,
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The methods used in implementing activities include:

- a. **Demonstrations and Hands-On Practice:** To ensure the transfer of skills and understanding in a practical way.
 - b. **Group Discussions:** To encourage collaborative problem-solving.
 - c. **Digital Marketing Simulation:** Through SEO content creation and Google Ads-based SEM advertising simulations.
4. **Evaluation Instruments and Techniques**

The assessment was conducted utilizing the subsequent instruments:

- a. **Participatory Observation:** To assess participants' activeness, technical skills, and cooperation during the practice.
- b. **Reflection and Feedback:** From participants and accompanying teachers regarding the benefits of the activity.

The evaluation also takes into account the quality of participants' output in the form of online store website designs and simple digital marketing strategy documents that they compiled during the activity.

Results and Discussion

The Community Service program at SMK Marhas Margahayu significantly enhanced students' comprehension and competencies in digital business principles and practices. The analysis utilized pre- and post-test findings, program observations, and perspectives from participants and their accompanying teachers.



Figure 1. Opening Picture of the Event

1. Improved Conceptual Understanding

The pre-test findings indicated that more than 70% of participants lacked comprehension of the distinction between E-Business and E-Commerce and had never been exposed to the phrases CMS, SEO, or SEM. Upon completion of the course, the post-test results indicated an average score enhancement of 38 points (rising from an average score of 49 to 87). This signifies a substantial gain in comprehension concerning:

- a. The significance of E-Business in holistic digital business administration
- b. The operational dynamics of E-Commerce as a digital marketplace
- c. The relevance of WordPress CMS in website development
- d. Fundamental tactics for content optimization (SEO) and digital marketing (SEM)

2. Practical Technology Skills

During the website development practice session, all students constructed basic e-commerce websites utilizing WordPress. Every website included a homepage, product catalog, order form, and contact

*Rr. Isni Anisah Puspowati Harori¹, Adi Suwarno², Yasfi Mahadi³,
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Ajeng Nabila Budiman⁹, Nazwa¹⁰, Argya¹¹*

details. Students were instructed on composing product articles optimized with keywords and meta descriptions as part of SEO training.

In the SEM component, students simulated the creation of advertisements using the Google Ads interface, encompassing audience targeting, keyword selection, and ad copy composition. Despite being a simulation, the activity offered a foundational comprehension of how SEM methods function to generate traffic.



Figure 2. Picture of website creation practice

3. Participant Enthusiasm and Interaction

During the website development practice session, all students constructed basic e-commerce websites utilizing WordPress. Every website included a homepage, product catalog, order form, and contact details. Students were instructed on composing product articles optimized with keywords and meta descriptions as part of SEO training.

In the SEM component, students simulated the creation of advertisements using the Google Ads interface, encompassing audience targeting, keyword selection, and ad copy composition. Despite being a

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Figure 3. Picture of students showing enthusiasm

Some students even showed initiative in creating their own personal websites after the activity, and expressed interest in continuing to learn about SEO independently.

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Figure 4. Picture Of Awarding Prizes To Students Who Show Enthusiasm

4. Reflection of Teachers and Supervising Lecturers

The supervising educator said that this activity positively influenced students, as the experiential learning approach was more comprehensible than theoretical instruction in the classroom. The instructional team noted that this exercise could function as a relevant and practical model for digital entrepreneurship education at the vocational school level.



Figure 5. Picture Of The Accompanying Teacher's Greeting



Figure 6. Picture of the welcome from the supervising lecturer

5. Relation to Previous Studies

The outcomes of this exercise corroborate the assertions of Tiago & Veríssimo (2014), who indicated that proficiency in digital marketing confers a competitive edge to small enterprises. This activity aligns with the findings of Manik et al. (2023), which emphasize the importance of

*Rr. Isnii Anisah Puspawati Harori¹, Adi Suwarno², Yasfi Mahadi³,
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integrating information technology to enhance company and product quality.

Conclusion

The Community Service (PKM) initiatives at SMK Marhas Margahayu have substantially improved students' comprehension and foundational abilities in digital business. Students comprehended the principles of E-Business and E-Commerce through interactive seminars and practical application, while also acquiring the skills to develop online store websites with WordPress CMS and mastering digital marketing methods via SEO and SEM.

The evaluation results indicated an enhancement in both conceptual comprehension and technical proficiency among participants following the program. The students' enthusiasm during the activities demonstrated that a practice-based educational approach is significantly pertinent for enhancing digital entrepreneurship literacy in vocational schools. Accompanying educators acknowledged that this project connected theoretical concepts with practical digital entrepreneurship, a subject not thoroughly addressed in the curriculum.

This effort illustrates that practical digital business training can serve as a successful technique for equipping young individuals to confront issues in the technology-driven job market and corporate environment. In the future, analogous activities should be duplicated with more extensive and complex topics, including advanced digital content management, e-payment integration, and digital branding via social media. This program seeks to strategically cultivate adaptive, innovative, and digitally proficient entrepreneurs among vocational school graduates.

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