

## Strengthening Business Networks Through Technology Utilization for MSMEs in Pegandon District

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**Abstract:** Digital technology enables the growing development of online shopping. This also makes it possible for each seller to market their products or services with a wider range and costs that are not as expensive as conventional ones. Pegandon District has many business actors or MSMEs. The GRDP growth rate in Pegandon District has not recovered after the COVID-19 pandemic. One way to increase the GRDP growth rate is to increase the capability of business actors in selling or distributing their products. One of the product sales distribution channels is e-commerce. This training activity is related to marketing in utilizing e-commerce. Therefore, training on the use of e-commerce is not only to increase sales, business actors are also able to expand their product introduction. In addition, this service activity also provides training on preparing simple financial reporting. It is hoped that through the financial reporting that is owned, business actors can access capital from formal financial institutions

**Keywords:** business networks, e-commerce, SMEs.

### Introduction

Pegandon District is a district in Kendal Regency, Central Java. It is located in the western part of Semarang City. Situated in the central part of Kendal Regency, this district is crossed by the Semarang-Batang Toll Road. It borders Gemuh District to the west, Ngampel District to the east, Patebon District to the north, and Singorojo District to the south. This district consists of 12 villages, including Pekuncen and Pegandon Villages. Located in the lowlands, the area is largely forested and rice fields. Some potential development opportunities in Pegandon District include tourism and home industry products or MSMEs. Gross Regional Domestic Product (GRDP) data for 2021 shows a figure of 3.89, an increase from -1.51 in the previous year, but still hasn't recovered to the 5.71 recorded in 2019 ([kendalkab.bps.go.id](http://kendalkab.bps.go.id)). In the home industry, products still need to be marketed to reach a wider consumer base.

This Community Service program aims to encourage entrepreneurs or MSMEs in Pegandon District to utilize digital technology in their operations. The existence of digital technology makes it easier for everyone to share information, thus impacting all business actors. This requires collaboration from various communities.

Based on the situation analysis of Pegandon District, Kendal Regency, improvements are needed in marketing and promotion to increase sales and awareness to be easily recognized by potential new consumers. Some of the problems

found by the community service team include: (1) marketing of MSME products that have not utilized digital technology.

E-commerce has become a growing sector in Indonesia. One factor is the COVID-19 pandemic, which has required people to self-isolate for a period of time. This has changed many activities, such as buying and selling, as markets and stores have had to comply with regulations requiring closures or restrictions. Buyers have also become accustomed to online shopping during quarantine to obtain products or goods. Therefore, to increase revenue, sellers and producers must adapt in several ways. One example is offering delivery services and selling through online platforms (e-commerce).

E-commerce is changing consumer habits, such as saving time by simply opening a device. These changes are welcomed and satisfied by consumers due to their greater effectiveness and efficiency. The presence of e-commerce makes it easier for startups to gain recognition. Current marketing concepts also incorporate e-commerce as a factor, necessitating the implementation of multichannel distribution for both large and small companies (Ferrera & Kessedijan, 2019).

## Method

The method used in Community Service for training on the use of e-commerce is divided into several stages which are briefly described in the following flow diagram:

### 1. Socialization

The event began with meetings with stakeholders and the local community to discuss potential collaborations to ensure the smooth running of the program, particularly with MSMEs. The socialization covered the aims and objectives of the Community Service program and the technical aspects of the program, including training on determining consumer targets, utilizing e-commerce, and editing product photos. This activity was held to facilitate community engagement, particularly in Pegandon and Pekuncen Villages in Pegandon District, Kendal Regency.

### 2. Training

The training is conducted in several stages. First, it provides an understanding of e-commerce through material delivery and a Q&A session. Second, it provides socialization and practical training on creating an account, preparing product photography materials, and promoting it by uploading posts to seller accounts.

### 3. Evaluation

This stage is a follow-up and control process, where we follow up on the activities that have been implemented. We hope the community will understand and continue to innovate and be creative in developing their MSMEs.

## Result

This community service activity has been carried out for three months. During this three-month period, six topics were presented in the community service activities. The implementation period and the topics presented are presented in the following table:

**Table 1**  
**Implementation of Community Service and Community Service Materials**

No.	Implementation Date	Community Service Material
1.	11 October 2025	Product Packaging
2.	25 October 2025	Product and Service Branding
3.	1 November 2025	Business Licensing
4.	13 November 2025	Marketplace
5.	27 Nopember 2025	Business Promotion Through e-Commerce
6.	17 December 2025	Business Financial Reporting

Source: Primary Data Processed, 2026

The following are the characteristics of the MSMEs participating in the community service activities. The characteristics described include gender, age, education, type of business, and length of service.

**Table 2**  
**Distribution of MSME Community Service Participants Based on Gender**

Implementation Date	Gender		Summary
	Male	Female	
11 October 2025	12	18	30
25 October 2025	15	16	31
1 November 2025	12	14	26
13 November 2025	14	16	30
27 Nopember 2025	16	15	31
17 December 2025	16	17	33

Source: Primary Data Processed, 2026

Based on the data presented in the table regarding gender characteristics, it is clear that male and female business owners in Pegandong District share the same interest or intention to develop and empower their businesses. This is demonstrated through their active participation in community service activities.

**Table 3**  
**Distribution of MSME Community Service Participants Based on Age**

Implementation Date	Usia (tahun)			Summary
	< 25	26 – 35	> 35	
11 October 2025	10	15	5	30
25 October 2025	9	15	7	31
1 November 2025	8	12	6	26
13 November 2025	9	13	8	30
27 Nopember 2025	12	14	5	31
17 December 2025	11	14	8	33

Source: Primary Data Processed, 2026

Based on the data presented in the table above, it shows that during the implementation of the community service activities, the entrepreneurs participating were predominantly between the ages of 26 and 35. This data indicates that these entrepreneurs are in the productive age range and therefore still have significant potential for empowerment and development.

**Table 4**  
**Distribution of MSME Participants in Community Service Based on Education**

Implementation Date	Pendidikan				Summary
	elementary school	Junior High School	Senior High School	University	
11 October 2025	3	9	16	2	30
25 October 2025	2	11	17	1	31
1 November 2025	1	10	15	0	26
13 November 2025	0	12	17	1	30
27 November 2025	0	11	19	1	31
17 December 2025	1	11	20	1	33

Source: Primary Data Processed, 2026

The data presented in the table above indicates limited human resource quality. This is reflected in the formal educational background of business owners in Pegandon District, the majority of whom have a high school education.

**Table 5**  
**Distribution of Community Service Participants in MSMEs Based on Business Type**

Implementation Date	Type of business			Summary
	Culinary	Fashion	Service	
11 October 2025	14	10	6	30
25 October 2025	16	8	7	31
1 November 2025	15	7	4	26
13 November 2025	16	8	6	30
27 November 2025	17	9	5	31
17 December 2025	17	10	6	33

Source: Primary Data Processed, 2026

The data presented in the table above shows that the majority of entrepreneurs choose the culinary business as their business option. There's a perception that the culinary business is an easy business to start. Entrepreneurs who can't cook can purchase a trademark or become franchise owners. Most of the culinary products offered are processed products that are characteristic of Pegandon District.

**Table 6**  
**Distribution of Community Service Participants in MSMEs Based on Length of Business**

Implementation Date	Length of Business		Summary
	≤ 3 Tahun	> 3 tahun	
11 October 2025	12	18	30
25 October 2025	14	17	31
1 November 2025	9	17	26
13 November 2025	12	18	30
27 November 2025	12	19	31
17 December 2025	15	18	33

Source: Primary Data Processed, 2026

The table above shows that the majority of community service participants are entrepreneurs who have been operating their businesses for more than three years. This information indicates business opportunities or potential for development and empowerment, leading to economic independence and even business opportunities.



Figure 1  
Training Activities

## Discussion

MSMEs have made a significant contribution to the progress of a country, according to McClelland (2000), through their contribution to Gross Regional Domestic Product (GRDP). MSMEs have the ability to survive the economic crisis that once hit Indonesia. MSMEs also contribute to labor absorption. Despite their significant contribution, MSMEs face both financial and non-financial problems (Urata, 2000). Financial problems include the mismatch in the availability of funds that can be accessed by MSMEs, the absence of systematic MSME funding, high transaction costs in the production process that cause product or service prices to be less competitive, and the financial condition of MSMEs that is not yet friendly to formal financial institutions, resulting in limited access to formal financial institutions. Meanwhile, from a non-financial aspect, MSMEs still face challenges regarding limited knowledge of technology, marketing, and the limited quality of human resources for MSME managers and owners.

This phenomenon prompted this community service activity. The goal of this

community service activity is to empower and develop MSMEs through training and mentoring, including training and assistance in packaging, branding, business licensing, promotion, marketplace management, and formal financial reporting. It is hoped that through this mentoring activity, the limitations inherent in MSMEs can be minimized, allowing them to tap into their economic potential, leading to independent, resilient, and empowered MSMEs.

## Conclusion

The implementation of comprehensive empowerment of SMEs through a business climate that is developed in a conducive manner, fair business opportunities, support, providing protection and opportunities for broad development is expected to improve the position, role and potential of SMEs as part of economic growth, equitable and increasing community income, opening up employment opportunities and reducing poverty rates.

## References

- Badan Pusat Statistik. (2021). *Laju Pertumbuhan PDRB Seri 2010 Atas Dasar Harga Konstan Menurut Lapangan Usaha*. Retrieved from [kendalkab.bps.go.id:https://kendalkab.bps.go.id/indicator/52/40/1/laju-pertumbuhan-pdrb-seri-2010-atas-dasar-harga-konstan-menurut-lapangan-usaha.html](https://kendalkab.bps.go.id:https://kendalkab.bps.go.id/indicator/52/40/1/laju-pertumbuhan-pdrb-seri-2010-atas-dasar-harga-konstan-menurut-lapangan-usaha.html)
- Ferrera, C., & Kessedijan, E. (2019). Evolution of E-commerce and Global Marketing. *International Journal of Technology for Business*.
- Kecamatan Pegandon. (2017). *Profil Kecamatan Pegandon*. Retrieved from [kecpegandon.kendalkab.go.id:https://kecpegandon.kendalkab.go.id/#](https://kecpegandon.kendalkab.go.id/#)
- Eriandani, Rizky., Fidelis Arastyo Andono<sup>2</sup>, Dianne Frisko Koan<sup>3</sup>, Muhammad Wisnu Girindratama<sup>4</sup>, Esti Dwi Rinawiyanti (2023). Bimbingan Teknis dan Pendampingan Penyusunan Laporan Keuangan bagi Unit Usaha BUMDes Mitra Warga Desa Kesiman. *International Journal of Community Service Learning*, 7 (1), 112-120.
- Herawati, Nyoman Trisna., Putu Sukma Kurniawan, Edy Sujana, Putu Eka Dianita Marvialianti Dewi, Luh Gede Kusuma Dewi (2020). Pemanfaatan Financial Technology Dalam Pengelolaan Keuangan Usaha Mikro Dan Kecil. *CARADDE: Jurnal Pengabdian Kepada Masyarakat*, 2 (2), 179-186.
- Purnama, I Ketut Eddy., Putu Gde Ariastita, Ketut Dewi Martha Erli Handayani, Supeno Mardi Susiki Nugroho (2018). Penerapan E-Commerce untuk Penguatan UMKM Berbasis Konsep One Village One Product di Kabupaten Karangasem. *SEWAGATI: Jurnal Pengabdian Kepada Masyarakat*, 2 (2), 85-90.
- Rahmadiane, Ghea Dwi., Nurul Mahmudah, Yusri Anis Faidah, Sadiva Kayla Tasya (2022). Strategi Penguatan Usaha dan Pemahaman Laporan Keuangan Bagi UMKM Kota Tegal. *PIMAS: Jurnal Pengabdian Masyarakat*, 1 (2), 60-66.
- Widyastuti, Fikka Kartika., Ayu Chandra Kartika Fitri<sup>2</sup>, M. Sa'dillah (2022). APLIKASI ECOMMERCE UNTUK PENINGKATAN PEMASARAN PRODUK UMKM SAMBAL KEMASAN SAMBEL'IN MAH DI MASA PANDEMI. *RESWARA: Jurnal Pengabdian Kepada Masyarakat*, 3 (2), 729-737.

Yuliani, Rahma., Kasyful Anwar, Adisti Rahmatiasari (2021). Pendampingan Pembuatan e-Marketplace dan Laporan Keuangan Pada UP2K “mulan” Khususnya Dasa Wisma “mawar”. *ILUNG: Jurnal Pengabdian Inovasi Lahan Basah Unggul*, 1 (2), 112-123.