

Optimization of Digital Marketing as an Effort to Expand the Reach of Promotion of MSME Products Assist by Village Enterprises Ngerangan Jaya

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ABSTRACT

Currently MSME sector can be seen in everyday life, starting from face to face directly or through digital media. The digital era has changed people's social activities increasingly with the emergence of various digital social media, and the social media is a gathering place for individuals and groups who are active and communicate with each other, and has been a strategic part of a business's product. Ngerangan village is currently known as the forerunner village of angkringan, and beginning in mid-2021 through the Village Enterprises Ngerangan Jaya will develop the Ngerangan Tourism Village by utilizing the potential of each hamlet area, there are several MSME products and businesses produced are assist by the Village Enterprises Ngerangan Jaya. Based on the situation analysis and interviews with the management of the Village Enterprises Ngerangan Jaya, the Ngerangan Tourism Village has several problems, one of the problems of this tourist village is the lack of understanding of residents about the use of information technology in tourism development which plays a role in providing information. From the analysis of the situation, the purpose of this activity is to equip and provide training to active members of MSME in each hamlet in Ngerangan Village to utilize social media as a means of digital marketing. This community service activity was carried out in Ngerangan Village, Bayat District, Klaten Regency by the Politeknik Manufaktur Ceper Community Service Team.

KEYWORDS

MSME;
Ngerangan Jaya;
Social Media;
Community Service



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1. Introduction

The Indonesian government through the Indonesian Ministry of Cooperatives and SMEs in 2017 [1], [2] stated that the number of MSMEs [3]–[6] had a market of around 99.99% of the total business units nationally, with the total absorption of labor nationally reaching 97%. Currently, sales and marketing activities in the MSME [7]–[9] sector can be seen in everyday life, starting from face to face directly or through digital media with a variety of goods being sold.

At present we live in the digital era, and the internet is a global information disclosure network using various types of media communication. Apart from that, as a developing country, Indonesia is currently experiencing the development of the Internet of Things or IoT [10]–[14] since the introduction of the industrial revolution 4.0 as a benchmark for the development of information technology and social. The presence of information disclosure and the development of IoT [15]–[17] are currently changing people's lives, one of which is changing product marketing strategies through digital marketing. Through the world of the internet, information in various fields will be netted in one media globally. This wider network directly affects the strategy in marketing practices, so that every community connected in one media becomes the object of marketing. The digital era has changed people's social activities increasingly with the emergence of various digital social media [1], [18], [19], social media [20]–[22] is a gathering place for individuals and groups who are active and communicate with each other. Since its inception, social media has been a strategic part of a business's product or service marketing target.

Ngerangan village is currently known as the forerunner village of angkringan with most of the population working as akrikan traders spread across Indonesia. Beginning from being known as the forerunner village of angkringan, in mid-2021 Ngerangan Village through the Village Enterprises Ngerangan Jaya will develop the Ngerangan Tourism Village by utilizing the potential of each hamlet area. There are several [23], [24] products and businesses produced by several hamlets of Ngerangan Village which are assist by the Village Enterprises Ngerangan Jaya, including banana chips from pisang village, wedang seruni and moringa steamed cake from herbal village, soy sauce from soybean village, tiwul gubug restaurant from kamung tiwul, kremes catfish rice from catfish village, sauce pecel seasoning from pecel village, blangkon crafts from blangkon village.

Based on the situation analysis and interviews with the management of the Village Enterprises Ngerangan Jaya, the Ngerangan Tourism Village has several problems, one of the problems of this tourist village is the lack of understanding of residents about the use of information technology in tourism development which plays a role in providing information. Using of technology to provide information or what can be called digital marketing can take advantage of social media [1], [25]–[27]. Information provided through social media is usually in the form of documentation or photos and video, so as to attract attention to fellow users of each of these social media. Reviewed from the analysis of the situation, the contribution of this activity is to equip and provide training to active members of MSME (Assist by Village Enterprises Ngerangan Jaya) in each hamlet to utilize social media as a means of digital marketing for MSMEs [25], [27], [28], so that can overcome the analysis of the situation found. This community service activity was carried out in Ngerangan Village, Bayat District, Klaten Regency by the oliteknik Manufaktur Ceper Community Service Team.

2. Method

This training activity was carried out on Friday, October 22, 2021 face-to-face at the Ngerangan Village Hall, Bayat District, Klaten Regency, the location of Google Maps is shown in Fig. 1 (coordinate -7.80219013701364, 110.68570182331717) by applying the health protocol discipline according to the procedures recommended by the government. This activity was attended by the village family welfare development group which represented each hamlet and was active in activities. In this briefing and training, 2 sub-activities were carried out, namely photography techniques and technical use of social media which were guided by the community service team. After carrying out this training activity, the community service team carried out monitoring and assistance through effective communication using the WhatsApp android-based social media application by forming a special monitoring and mentoring group.

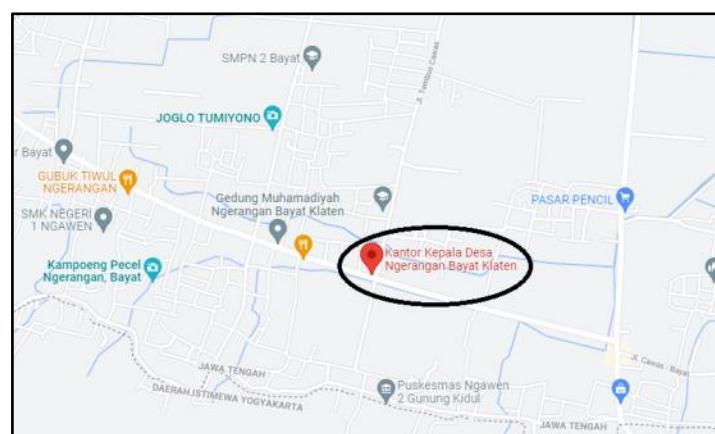


Fig. 1. Location of Google Maps Ngerangan Village Hall, Bayat District, Klaten Regency.

3. Results and Discussion

The community dedication activity began with the opening session of the event, as a convey of the aims and objectives of the activity to the participants who took part in the event, which is shown in Fig. 2. After the convey of the aim and objectives, the community dedication team presented a program presentation which was divided into two sub-programs, shown in Fig 3, i.e. the digital marketing system through social media [29], [30], and photography techniques as documentation supplies for the purposes of social media content.



Fig. 2. Program Event: (a) Opening Session, (b) Presentation Program Digital Marketing and Photography Techniques

In the presentation of the subprogram on digital marketing, the team provided information about changes in marketing strategies that were previously carried out conventionally, now slowly shifting digitally. In addition, this presentation also provides information about the advantages of digital marketing, by taking referrals based on references, i.e.:

- a) Social media is an easy way to find out more about the customers
- b) Social media helps search target consumers more effectively
- c) Social media help find new consumers and expand target market
- d) Developing target market and one step ahead from competitors
- e) Social media can help increase website visitors and search engine ranking
- f) Share information faster with social media
- g) Social media helps generate list of new potential customers
- h) Closer to consumers through social media
- i) Social media increases brand awareness and promotion with minimal cost

After explaining the advantages of marketing using social media, the team gave examples of social media platforms that are usually used and accessed by many people for digital marketing such as Instagram and Facebook. To further complement the marketing strategy with digital marketing, other application accounts are needed, as support, i.e. google maps, and linktree.

Using google maps locations, routes, and travel times can be monitored via a draggable map. In a digital marketing strategy using Google Maps, it can support customers or potential customers to find product locations. While the linktree is an application service used as a link path to another link that is more numerous. In this digital marketing service program, the use of Linktree provides link information for Instagram addresses, Facebook addresses, Google Maps links, contact number links, and other links

in one link display. This makes it easier for customers or potential customers to contact partners, so the partners are easier to know and reach digitally.

Utilization of social media as digital marketing in providing information which is usually in the form of documentation or photos, so as to attract the attention of fellow users of the media, the documentation must have good and unique quality to attract the attention of customers. Utilization of social media as digital marketing in providing information which is usually in the form of documentation or photos, so as to attract the attention of fellow users of the media, the documentation must have good and unique quality to attract the attention of customers. In the second sub-program, training and mentoring are carried out in applying basic photography techniques, participants can be creative in documenting photos. This activity is a provision for participants to apply it in social media accounts as a medium for promoting MSME products.

In photography, lighting technique is the most influential factor in the results of photo documentation, as shown in Figure 3a, lighting is required when doing indoor photography, besides that Fig. 3 also shows the technique of using a plain background, this is intended so that the main object can be seen in focus clear. In addition to using a plain background, this background can also be combined with other objects to add interest in photo documentation, this is shown in Fig. 3(b), which is one of the photos taken by participants add the flowers around the product.



Fig. 3. Photography Technique: (a) Lighting Technique, (b) Photos Taken by Participants

Through these two subprograms, it is hoped that they can be a good provision for participants to apply it as digital marketing as a means of promoting MSMEs. In addition, the service team directly develops social media accounts that are currently widely used, namely Instagram Fig. 4(a) and Facebook Fig. 4(b) which are then carried out with assistance and evaluation through at Whatsapp groups.

4. Conclusion

The community dedication activities have been carried out with representatives of participants from each hamlet. Activities carried out directly at the Ngerangan Village Hall have included a digital marketing material debriefing program and a photography technique program. It is hoped that after carrying out the activities of these 2 sub-programs, participants will directly become provisions for the promotion of MSMEs managed by the Ngerangan Tourism Village through the Village Enterprises of Ngerangan Jaya.

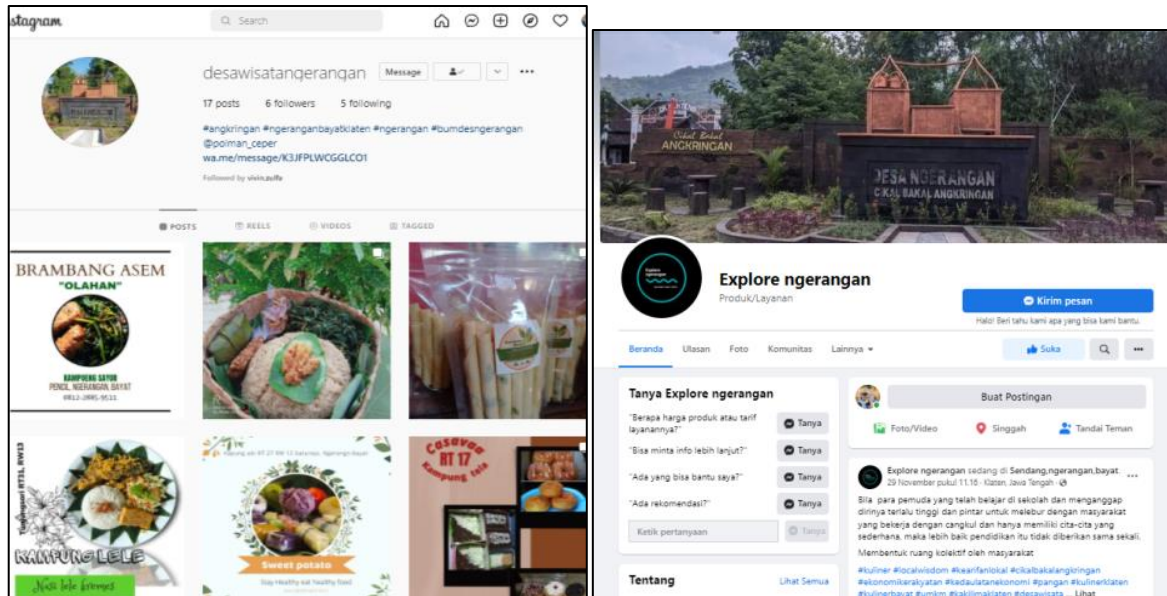


Fig. 4. Social media account : (a) Instagram, (b) Facebook

Author Contribution

All authors contributed equally to the main contributor to this paper. All authors have read and agreed to the published version of the manuscript.

Conflict of Interest

The authors declare no conflict of interest.

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References

- [1] G. Sedalo, H. Boateng, and J. P. Kosiba, "Exploring social media affordance in relationship marketing practices in SMEs," *Digit. Bus.*, p. 100017, Sep. 2021, doi: [10.1016/j.digbus.2021.100017](https://doi.org/10.1016/j.digbus.2021.100017).
- [2] P. Quartey, E. Turkson, J. Y. Abor, and A. M. Iddrisu, "Financing the growth of SMEs in Africa: What are the constraints to SME financing within ECOWAS?," *Rev. Dev. Financ.*, vol. 7, no. 1, pp. 18–28, Jun. 2017, doi: [10.1016/j.rdf.2017.03.001](https://doi.org/10.1016/j.rdf.2017.03.001).
- [3] T. Vedhathiri, "Collaborative Dissertation Based on the Human Resources Needs of MSMEs to Improve their Competitiveness and to Overcome the Disruption," *Procedia Comput. Sci.*, vol. 172, pp. 551–558, Jan. 2020, doi: [10.1016/j.procs.2020.05.160](https://doi.org/10.1016/j.procs.2020.05.160).
- [4] F. Dewi and M. ER, "Business Process Maturity Level of MSMEs in East Java, Indonesia," *Procedia Comput. Sci.*, vol. 161, pp. 1098–1105, Jan. 2019, doi: [10.1016/j.procs.2019.11.221](https://doi.org/10.1016/j.procs.2019.11.221).
- [5] A. A. Esubalew and A. Raghurama, "The mediating effect of entrepreneurs' competency on the relationship between Bank finance and performance of micro, small, and medium enterprises (MSMEs)," *Eur. Res. Manag. Bus. Econ.*, vol. 26, no. 2, pp. 87–95, May 2020, doi: [10.1016/j.iemeen.2020.03.001](https://doi.org/10.1016/j.iemeen.2020.03.001).
- [6] G. Samantha, "The Impact of Natural Disasters on Micro, Small and Medium Enterprises (MSMEs): A Case Study on 2016 Flood Event in Western Sri Lanka," *Procedia Eng.*, vol. 212, pp. 744–751, Jan. 2018, doi: [10.1016/j.proeng.2018.01.096](https://doi.org/10.1016/j.proeng.2018.01.096).

- [7] M. Zhang, Y. Lian, H. Zhao, and C. Xia-Bauer, "Unlocking green financing for building energy retrofit: A survey in the western China," *Energy Strateg. Rev.*, vol. 30, p. 100520, Jul. 2020, doi: [10.1016/j.esr.2020.100520](https://doi.org/10.1016/j.esr.2020.100520).
- [8] A. Floridi, B. A. Demena, and N. Wagner, "Shedding light on the shadows of informality: A meta-analysis of formalization interventions targeted at informal firms," *Labour Econ.*, vol. 67, p. 101925, Dec. 2020, doi: [10.1016/j.labeco.2020.101925](https://doi.org/10.1016/j.labeco.2020.101925).
- [9] K. Lukiyanto and M. Wijayaningtyas, "Gotong Royong as social capital to overcome micro and small enterprises' capital difficulties," *Heliyon*, vol. 6, no. 9, p. e04879, Sep. 2020, doi: [10.1016/j.heliyon.2020.e04879](https://doi.org/10.1016/j.heliyon.2020.e04879).
- [10] C. Verdouw, H. Sundmaeker, B. Tekinerdogan, D. Conzon, and T. Montanaro, "Architecture framework of IoT-based food and farm systems: A multiple case study," *Comput. Electron. Agric.*, vol. 165, p. 104939, Oct. 2019, doi: [10.1016/j.compag.2019.104939](https://doi.org/10.1016/j.compag.2019.104939).
- [11] H. Andrianto, Suhardi, A. Faizal, N. Budi Kurniawan, and D. Praja Purwa Aji, "Performance evaluation of IoT-based service system for monitoring nutritional deficiencies in plants," *Inf. Process. Agric.*, vol. 10, no. 1, pp. 52–70, Okt. 2021, doi: [10.1016/j.inpa.2021.10.001](https://doi.org/10.1016/j.inpa.2021.10.001).
- [12] M. Dachyar, T. Y. M. Zagloel, and L. R. Saragih, "Knowledge growth and development: internet of things (IoT) research, 2006–2018," *Heliyon*, vol. 5, no. 8, p. e02264, Aug. 2019, doi: [10.1016/j.heliyon.2019.e02264](https://doi.org/10.1016/j.heliyon.2019.e02264).
- [13] K. K. Mekki, E. Bajic, F. Chaxel, and F. Meyer, "A comparative study of LPWAN technologies for large-scale IoT deployment," *ICT Express*, vol. 5, no. 1, pp. 1–7, Mar. 2019, doi: [10.1016/j.ict.2017.12.005](https://doi.org/10.1016/j.ict.2017.12.005).
- [14] B. S. S. Tejesh and S. Neeraja, "Warehouse inventory management system using IoT and open source framework," *Alexandria Eng. J.*, vol. 57, no. 4, pp. 3817–3823, Dec. 2018, doi: [10.1016/j.aej.2018.02.003](https://doi.org/10.1016/j.aej.2018.02.003).
- [15] A. R. Al-Ali, A. Al Nabulsi, S. Mukhopadhyay, M. S. Awal, S. Fernandes, and K. Ailabouni, "IoT-solar energy powered smart farm irrigation system," *J. Electron. Sci. Technol.*, vol. 17, no. 4, p. 100017, Dec. 2019, doi: [10.1016/j.jnlest.2020.100017](https://doi.org/10.1016/j.jnlest.2020.100017).
- [16] D. Karimanzira and T. Rauschenbach, "Enhancing aquaponics management with IoT-based Predictive Analytics for efficient information utilization," *Inf. Process. Agric.*, vol. 6, no. 3, pp. 375–385, Sep. 2019, doi: [10.1016/j.inpa.2018.12.003](https://doi.org/10.1016/j.inpa.2018.12.003).
- [17] A. Perles et al., "An energy-efficient internet of things (IoT) architecture for preventive conservation of cultural heritage," *Futur. Gener. Comput. Syst.*, vol. 81, pp. 566–581, Apr. 2018, doi: [10.1016/j.future.2017.06.030](https://doi.org/10.1016/j.future.2017.06.030).
- [18] Y. K. Dwivedi et al., "Setting the future of digital and social media marketing research: Perspectives and research propositions," *Int. J. Inf. Manage.*, vol. 59, p. 102168, Aug. 2021, doi: [10.1016/j.ijinfomgt.2020.102168](https://doi.org/10.1016/j.ijinfomgt.2020.102168).
- [19] S. Fraccastoro, M. Gabrielsson, and E. B. Pullins, "The integrated use of social media, digital, and traditional communication tools in the B2B sales process of international SMEs," *Int. Bus. Rev.*, vol. 30, no. 4, p. 101776, Aug. 2021, doi: [10.1016/j.ibusrev.2020.101776](https://doi.org/10.1016/j.ibusrev.2020.101776).
- [20] C. Waite, "Making place beyond the city through the lens of digital media: Culturally diverse young people negotiating social change in a rural city," *Digit. Geogr. Soc.*, vol. 2, p. 100021, Jan. 2021, doi: [10.1016/j.diggeo.2021.100021](https://doi.org/10.1016/j.diggeo.2021.100021).
- [21] T. A. August, O. L. Pescott, A. Joly, and P. Bonnet, "AI Naturalists Might Hold the Key to Unlocking Biodiversity Data in Social Media Imagery," *Patterns*, vol. 1, no. 7, p. 100116, Oct. 2020, doi: [10.1016/j.patter.2020.100116](https://doi.org/10.1016/j.patter.2020.100116).
- [22] J. Groshek, V. de Mees, and R. Eschmann, "Modeling influence and community in social media data using the digital methods initiative-twitter capture and analysis toolkit (DMI-TCAT) and Gephi," *MethodsX*, vol. 7, p. 101164, Jan. 2020, doi: [10.1016/j.mex.2020.101164](https://doi.org/10.1016/j.mex.2020.101164).
- [23] Wahyono and B. Hutahayan, "The relationships between market orientation, learning orientation, financial literacy, on the knowledge competence, innovation, and performance of small and medium textile industries in Java and Bali," *Asia Pacific Manag. Rev.*, vol. 26, no. 1, pp. 39–46, Mar. 2021, doi: [10.1016/j.apmr.2020.07.001](https://doi.org/10.1016/j.apmr.2020.07.001).
- [24] M. Shafi, J. Liu, and W. Ren, "Impact of COVID-19 pandemic on micro, small, and medium-sized Enterprises operating in Pakistan," *Res. Glob.*, vol. 2, p. 100018, Dec. 2020, doi: [10.1016/j.resglo.2020.100018](https://doi.org/10.1016/j.resglo.2020.100018).
- [25] P. C. Verhoef and T. H. A. Bijmolt, "Marketing perspectives on digital business models: A framework and overview of the special issue," *Int. J. Res. Mark.*, vol. 36, no. 3, pp. 341–349, Sep. 2019, doi: [10.1016/j.ijresmar.2019.08.001](https://doi.org/10.1016/j.ijresmar.2019.08.001).
- [26] T. Ueda and H. Ban, "Active Learning on Digital Marketing for Advertising A University Museum Exhibition," *Procedia Comput. Sci.*, vol. 126, pp. 2097–2106, Jan. 2018, doi: [10.1016/j.procs.2018.07.242](https://doi.org/10.1016/j.procs.2018.07.242).

- [27] A. Rangaswamy, N. Moch, C. Felten, G. van Bruggen, J. E. Wieringa, and J. Wirtz, "The Role of Marketing in Digital Business Platforms," *J. Interact. Mark.*, vol. 51, pp. 72–90, Aug. 2020, doi: [10.1016/j.intmar.2020.04.006](https://doi.org/10.1016/j.intmar.2020.04.006).
- [28] M. Faruk, M. Rahman, and S. Hasan, "How digital marketing evolved over time: A bibliometric analysis on scopus database," *Heliyon*, vol. 7, no. 12, p. e08603, Dec. 2021, doi: [10.1016/j.heliyon.2021.e08603](https://doi.org/10.1016/j.heliyon.2021.e08603).
- [29] T. Saheb, B. Amini, and F. Kiaei Alamdari, "Quantitative analysis of the development of digital marketing field: Bibliometric analysis and network mapping," *Int. J. Inf. Manag. Data Insights*, vol. 1, no. 2, p. 100018, Nov. 2021, doi: [10.1016/j.jjime.2021.100018](https://doi.org/10.1016/j.jjime.2021.100018).
- [30] D. Hagen, A. Risselada, B. Spierings, J. W. J. Weltevreden, and O. Atzema, "Digital marketing activities by Dutch place management partnerships: A resource-based view," *Cities*, vol. 123, p. 103548, Apr. 2022, doi: [10.1016/j.cities.2021.103548](https://doi.org/10.1016/j.cities.2021.103548).